

RULES AND REGULATIONS

Title 25—ENVIRONMENTAL PROTECTION

ENVIRONMENTAL QUALITY BOARD [25 PA. CODE CHS. 121 AND 129]

VOC RACT Requirements for Shipbuilding and Ship Repair Surface Coatings, Large Petroleum Dry Cleaning Facilities and Synthetic Organic Chemical Manufacturing Industry Processes for the 2015 Ozone NAAQS

The Environmental Quality Board (Board) amends Chapters 121 and 129 (relating to general provisions; and standards for sources) as set forth in Annex A to establish presumptive volatile organic compound (VOC) emission reasonably available control technology (RACT) requirements and RACT emission limitations for the following control techniques guidelines (CTG) source categories: shipbuilding and ship repair surface coatings; large petroleum dry cleaning facilities; and synthetic organic chemical manufacturing industry (SOCMI) air oxidation, distillation and reactor processes. This final-form rulemaking adds definitions to § 121.1 (relating to definitions); adds shipbuilding and ship repair surface coating requirements to § 129.52 (relating to surface coating processes); and adds §§ 129.63b and 129.71a (relating to control of VOC emissions from large petroleum dry cleaning facilities; and control of VOC emissions from the synthetic organic chemical manufacturing industry—air oxidation, distillation and reactor processes).

This final-form rulemaking will be submitted to the United States Environmental Protection Agency (EPA) for approval as a revision to the Commonwealth's State Implementation Plan (SIP) following publication of this final-form rulemaking in the *Pennsylvania Bulletin*.

This final-form rulemaking was adopted by the Board at its meeting of October 12, 2022.

A. Effective Date

This final-form rulemaking will be effective upon publication in the *Pennsylvania Bulletin*.

B. Contact Persons

For further information, contact Kirit Dalal, Chief, Division of Air Resource Management, Bureau of Air Quality, Rachel Carson State Office Building, P.O. Box 8468, Harrisburg, PA 17105-8468, (717) 772-3436; or Jesse Walker, Assistant Counsel, Bureau of Regulatory Counsel, Rachel Carson State Office Building, P.O. Box 8464, Harrisburg, PA 17105-8464, (717) 787-7060. Persons with a disability may use the Pennsylvania Hamilton Relay Service, (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This final-form rulemaking is available on the Department of Environmental Protection's (Department) web site at www.dep.pa.gov (select "Public Participation," then "Environmental Quality Board" and then navigate to the Board meeting of October 12, 2022).

C. Statutory Authority

This final-form rulemaking is authorized under section 5(a)(1) of the Air Pollution Control Act (APCA) (35 P.S. § 4005(a)(1)), which grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Common-

wealth; and section 5(a)(8) of the APCA, which grants the Board the authority to adopt rules and regulations designed to implement the provisions of the Clean Air Act (CAA) (42 U.S.C.A. §§ 7401—7671q).

D. Background and Purpose

Summary

This final-form rulemaking implements presumptive RACT measures to control VOC emissions Statewide from shipbuilding and ship repair facilities with surface coating operations, large petroleum dry cleaning facilities and SOCMI air oxidation, distillation and reactor processes. While these final-form presumptive RACT measures are established for the control of VOC emissions from affected sources in the covered categories, the Department does not anticipate that the implementation of this final-form rulemaking will result in additional reductions of VOC emissions from the affected sources. The owners and operators of all affected facilities in this Commonwealth are currently subject to other regulatory or operating permit conditions, compliance with which will ensure that the affected owners and operators comply with the CTG-based VOC RACT standards, emission limitations and other requirements established in this final-form rulemaking. Rather, this final-form rulemaking is primarily designed to address administrative and cost issues for the regulated industries associated with the lack of Federally enforceable presumptive RACT regulations in the Commonwealth's SIP for the covered categories.

The inclusion of VOC emission RACT measures in the SIP for these source categories is a requirement under the CAA to demonstrate that the Commonwealth is implementing measures to attain and maintain the applicable ground-level ozone standards. Once approved into the SIP, these measures are Federally enforceable in addition to being enforced by the Commonwealth. The Department historically has addressed the Federally enforceable RACT status of the owners and operators of the sources covered by this final-form rulemaking by submitting the individual facility operating permits to the EPA as revisions to the SIP. This imposes administrative and cost burdens on the owners and operators of these facilities because each time the owner or operator wants to modify the facility, the change in the operating permit conditions must be submitted to the EPA as a revision to the SIP for that individual operating permit to demonstrate that RACT for the applicable ozone standard is maintained. The owner or operator of the facility bears the administrative burden and costs of advertising the change and conducting the required SIP public hearing and public comment period before the Department can submit the changes to the EPA for review and approval as a revision to the SIP.

An owner or operator of a subject source that incorporates presumptive RACT requirements established by regulation into the applicable operating permit does not need to submit an application to the Department to amend the individual operating permit for facility modifications that are covered by the presumptive RACT conditions. This relieves the affected owner and operator of the administrative burden and the costs associated with applying to the Department to modify operating permit RACT requirements and the administrative burden and costs of submitting Department-issued individual operating permits to the Administrator of the EPA for review and approval as revisions to the Commonwealth's SIP.

Additionally, the Commonwealth is required to submit a SIP revision to the EPA to address and certify that the Commonwealth's SIP contains RACT measures for attaining and maintaining the 2015 8-hour ground-level ozone National Ambient Air Quality Standard (NAAQS) for all categories of sources in this Commonwealth that are covered by a CTG. The Commonwealth is further required to demonstrate how it will bring the ground-level ozone nonattainment areas into attainment and maintenance of the 2015 8-hour ground-level ozone NAAQS. See 83 FR 62998 (December 6, 2018). The administrative burdens and costs for certification of RACT for the 2015 8-hour ground-level ozone NAAQS for the affected owners and operators subject to this final-form rulemaking are expected to be reduced or eliminated through the implementation of these final-form presumptive RACT measures and their incorporation into the SIP if approved by the EPA.

This final-form rulemaking is reasonably necessary to attain and maintain the health-based and welfare-based 8-hour ground-level ozone NAAQS and to satisfy related CAA requirements in this Commonwealth.

Ground-level ozone

VOC emissions are precursors to the formation of ground-level ozone formation, a public health and welfare hazard. Ground-level ozone is not emitted directly to the atmosphere by the processes subject to this final-form rulemaking, but forms from the photochemical reaction between emissions of VOCs and oxides of nitrogen (NO_x) in the presence of sunlight.

Ground-level ozone is a highly reactive gas which, at sufficiently high concentrations, can produce a wide variety of harmful effects. At elevated concentrations, ground-level ozone can adversely affect human health, animal health, vegetation, materials and personal comfort and well-being. It can cause damage to important food crops, forests, livestock and wildlife. Repeated exposure to ground-level ozone pollution may cause a variety of adverse health effects for both healthy people and those with existing conditions, including difficulty in breathing, chest pains, coughing, nausea, throat irritation and congestion. It can worsen bronchitis, heart disease, emphysema and asthma, reduce lung capacity and lead to increased morbidity. Asthma is a significant and growing threat to children and adults. High levels of ground-level ozone can affect animals in ways similar to humans. High levels of ground-level ozone can also cause damage to buildings and synthetic fibers, including nylon, and reduced visibility on roadways and in natural areas. The implementation of these final-form control measures to address ozone air quality nonattainment in this Commonwealth is reasonably necessary to protect the public health and welfare, animal and plant health and welfare and the environment.

National Ambient Air Quality Standards

The EPA is responsible for establishing NAAQS, or maximum allowable concentrations in the ambient air, for certain "criteria" pollutants considered harmful to public health and the environment. The criteria air pollutants are commonly found throughout the United States and currently include six air pollutants: ground-level ozone; particle pollution (often referred to as particulate matter); NO_x (with nitrogen dioxide (NO₂) as the indicator); carbon monoxide; sulfur dioxide; and lead. Section 109 of the CAA (42 U.S.C.A. § 7409) established two types of NAAQS: primary standards, which are limits set to protect public health; and secondary standards, which are

limits set to protect public welfare and the environment, including protection against visibility impairment and from damage to animals, crops, vegetation and buildings. The EPA established primary and secondary ground-level ozone NAAQS to protect public health and public welfare, including the environment.

In July 1997, the EPA promulgated primary and secondary ozone standards under section 109 of the CAA at a level of 0.08 parts per million (ppm) averaged over 8 hours. See 62 FR 38856 (July 18, 1997). In 2004, the EPA designated 37 counties in this Commonwealth as 8-hour ozone nonattainment areas for the 1997 8-hour ozone NAAQS. See 69 FR 23858, 23931 (April 30, 2004).

In March 2008, the EPA lowered the primary and secondary ozone NAAQS to 0.075 ppm (75 parts per billion (ppb)) averaged over 8 hours to provide greater protection for children, other at-risk populations and the environment against the array of ozone-induced adverse health and welfare effects. See 73 FR 16436 (March 27, 2008). In April 2012, the EPA designated five areas in this Commonwealth as nonattainment for the 2008 ozone NAAQS. See 77 FR 30087, 30143 (May 21, 2012). These areas include all or a portion of Allegheny, Armstrong, Beaver, Berks, Bucks, Butler, Carbon, Chester, Delaware, Fayette, Lancaster, Lehigh, Montgomery, Northampton, Philadelphia, Washington and Westmoreland Counties.

On October 1, 2015, the EPA lowered the primary and secondary ozone NAAQS to 0.070 ppm (70 ppb) averaged over 8 hours for increased protection of the public health and welfare. See 80 FR 65292 (October 26, 2015). In June 2018, the EPA designated Bucks, Chester, Delaware, Montgomery and Philadelphia Counties as nonattainment for the 2015 ozone NAAQS. See 83 FR 25776 (June 4, 2018).

The Department's certified analysis of the 2021 ambient air ozone season monitoring data shows that all ozone samplers in this Commonwealth are monitoring attainment of the 2015 8-hour ozone NAAQS except these two: the Bristol sampler in Bucks County and the Philadelphia Air Management Services Northeast Airport in Philadelphia County. Ozone samplers in this Commonwealth are projected to monitor attainment of the 2008 and 1997 8-hour ozone NAAQS. The Department must ensure that the 1997, 2008 and 2015 ozone NAAQS are attained and maintained by implementing permanent and Federally enforceable control measures.

State Implementation Plans and Reasonably Available Control Technology

Section 110(a) of the CAA (42 U.S.C.A. § 7410(a)) gives the states the primary responsibility for achieving the NAAQS. Section 110(a) of the CAA provides that each state shall adopt and submit to the EPA a plan to implement measures (a SIP) to enforce the NAAQS or a revision to the NAAQS promulgated under section 109(b) of the CAA. A SIP includes the regulatory programs, actions and commitments a state will carry out to implement its responsibilities under the CAA. Once approved by the EPA as a revision to the SIP, the SIP-approved regulatory program, action or commitment is legally enforceable under both Federal and state law.

Section 172(c)(1) of the CAA (42 U.S.C.A. § 7502(c)(1)) provides that SIPs for nonattainment areas must include "reasonably available control measures," including RACT, for sources of emissions of VOC and NO_x. The EPA defines RACT as "[t]he lowest emissions limitation that a particular source is capable of meeting by the application

of control technology that is reasonably available considering technological and economic feasibility.” See 44 FR 53762 (September 17, 1979).

Section 183(e) of the CAA (42 U.S.C.A. § 7511b(e)) directs the EPA to list for regulation those categories of products that account for at least 80% of the VOC emissions from consumer and commercial products in ozone nonattainment areas. Section 183(e)(3)(C) of the CAA further provides that the EPA may issue a CTG document in place of a National regulation for a product category on the section 183(e) list when the EPA determines that the recommendations of the CTG, when implemented by the affected states, will be “substantially as effective as regulations” in reducing emissions of VOCs in ozone nonattainment areas.

Section 182(b)(2) of the CAA (42 U.S.C.A. § 7511a(b)(2)) provides that for moderate ozone nonattainment areas, states must revise their SIPs to include RACT for sources of VOC emissions covered by a CTG document issued by the EPA prior to the area’s date of attainment of the applicable ozone NAAQS. For RACT implementation purposes, the entire Commonwealth is treated as a “moderate” ozone nonattainment area because this Commonwealth is included in the Ozone Transport Region (OTR) established under sections 176A and 184 of the CAA (42 U.S.C.A. §§ 7506a and 7511c). Section 184(b) of the CAA (42 U.S.C.A. § 7511c(b)) addresses provisions for the SIP of a state included in the OTR. Section 184(b)(1)(B) of the CAA requires that states in the OTR, including the Commonwealth, submit a SIP revision requiring the implementation of RACT for all sources of VOC emissions in the state covered by a specific CTG and not just for those sources that are located in designated nonattainment areas of the state. The EPA’s final implementation rule for the 2015 ozone NAAQS also requires a state within the OTR to submit a SIP revision that demonstrates that it is meeting the RACT requirements of section 184(b) of the CAA for all portions of the state located in an OTR. See 83 FR 63036 (December 6, 2018); and 40 CFR 51.1316 (relating to requirements for an Ozone Transport Region). Consequently, the Commonwealth’s SIP must include RACT requirements applicable to each subject source located in this Commonwealth, and not just to those sources located in designated ozone nonattainment areas, to control VOC emissions from existing stationary sources covered by a specific CTG.

In accordance with sections 172(c)(1), 182(b)(2), 183(e) and 184(b)(1)(B) of the CAA, the final-form amendments to § 129.52 and final-form §§ 129.63b and 129.71a establish VOC RACT emission limitations and other requirements for shipbuilding and ship repair facility surface coating operations, large petroleum dry cleaning facilities and SOCOMI air oxidation, distillation and reactor processes consistent with the recommendations of the following EPA documents: “Alternative Control Techniques Document: Surface Coating Operations at Shipbuilding and Ship Repair Facilities,” EPA-453/R-94-032, April 1994 (1994 SB ACT) and the “Control Techniques Guidelines for Shipbuilding and Ship Repair Operations (Surface Coating),” 61 FR 44050 (August 27, 1996) (1996 SB CTG); “Control of Volatile Organic Compound Emissions from Large Petroleum Dry Cleaners,” EPA-450/3-82-009, September 1982 (1982 LPDC CTG); “Control of Volatile Organic Compound Emissions from Air Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry,” EPA-450/3-84-015, December 1984 (1984 SOCOMI CTG); and “Control of Volatile Organic Compound Emissions from Reactor Processes and Distillation Opera-

tions Processes in the Synthetic Organic Chemical Manufacturing Industry,” EPA-450/4-91-031, August 1993 (1993 SOCOMI CTG).

The Department reviewed the RACT recommendations of the EPA included in the 1994 SB ACT and the 1996 SB CTG, the 1982 LPDC CTG and the 1984 and 1993 SOCOMI CTGs for their applicability as RACT measures necessary in this Commonwealth to reduce ground-level ozone. The Bureau of Air Quality has determined that the recommended measures provided in the CTGs are appropriate to be implemented in this Commonwealth as RACT for these source categories.

This final-form rulemaking is designed to implement RACT requirements consistent with the recommendations of the EPA in the applicable CTGs by regulation as presumptive air pollution control measures to address administrative and cost issues for the regulated industries associated with the lack of Federally enforceable presumptive RACT regulations in the Commonwealth’s SIP for the covered categories. An owner or operator of a subject source that incorporates presumptive RACT requirements established by regulation into the applicable operating permit does not need to submit an application to the Department to amend the individual operating permit for facility modifications that are covered by the presumptive RACT conditions. RACT requirements established by regulation that are approved by the EPA as revisions to the SIP also relieve the affected owner and operator and the Department of the administrative burdens and costs of submitting the individual source RACT operating permits and changes to the individual operating permit to the EPA as a revision to the SIP for that individual operating permit.

The Commonwealth is also required to submit a SIP revision to the EPA to address and certify that the Commonwealth’s SIP contains RACT measures applicable Statewide for attaining and maintaining the 2015 8-hour ground-level ozone NAAQS for all categories of sources in this Commonwealth that are covered by a CTG. The Commonwealth is further required to demonstrate how it will bring the ground-level ozone nonattainment areas into attainment and maintenance of the 2015 8-hour ground-level ozone standard. See 83 FR 62998 (December 6, 2018). The administrative burdens and costs for certification of RACT for the 2015 8-hour ground-level ozone NAAQS for the affected owners and operators subject to this final-form rulemaking are expected to be reduced or eliminated through the implementation of these final-form presumptive RACT measures and their incorporation into the SIP if approved by the EPA.

Affected source categories

This final-form rulemaking applies to the owners and operators of shipbuilding and ship repair facilities with surface coating operations, large petroleum dry cleaning facilities and SOCOMI air oxidation, distillation and reactor facilities. The Department reviewed its databases, permits and general permits for sources under its jurisdiction and identified two shipbuilding and ship repair surface coating operations, one air oxidation operation, several reactors and distillation facilities and several small petroleum dry cleaning facilities that fit the source categories for RACT purposes. There are no large petroleum dry cleaning facilities in this Commonwealth that are impacted by this final-form rulemaking based on the petroleum solvent usage threshold of 32,493 gallons (123,000 liters) or more of petroleum solvent annually; small petroleum dry cleaners below the final-form applicable petroleum solvent usage threshold of 32,493 gallons

(123,000 liters) annually are subject only to recordkeeping and reporting requirements, which are existing obligations under applicable Federal new source performance standards (NSPS) requirements and permitting regulations. See 40 CFR Part 60, Subpart JJJ (relating to standards of performance for petroleum dry cleaners). The owners and operators of the two shipbuilding and ship repair surface coating operations under the Department's jurisdiction that will be subject to this final-form rulemaking are subject to existing operating permit conditions; compliance with the existing operating permit conditions will ensure compliance with the applicable final-form RACT requirements. Another shipbuilding and ship repair surface coating facility in the City of Philadelphia is subject to a Philadelphia Air Management Services regulation that has been approved as a revision to the Commonwealth's SIP. The owners and operators of the SOCOMI facilities are subject to Federal NSPS requirements (40 CFR Part 60, Subparts III, NNN and RRR (relating to standards of performance for Volatile Organic Compound (VOC) emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) air oxidation unit processes; standards of performance for Volatile Organic Compound (VOC) emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) distillation operations; and standards of performance for Volatile Organic Compound emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) reactor processes)) or to existing operating permit conditions; compliance with the applicable NSPS requirements or the existing operating permit conditions will ensure compliance with the applicable final-form RACT requirements. Therefore, the owners and operators of existing facilities in this Commonwealth that will be subject to this final-form rulemaking are already subject to requirements that are equivalent to or more stringent than the applicable RACT requirements and emission limitations of this final-form rulemaking.

Public outreach

The Department consulted with the Air Quality Technical Advisory Committee (AQTAC) and the Small Business Compliance Advisory Committee (SBCAC) on the proposed rulemaking on October 15, 2020, and October 28, 2020, respectively. Other than two abstentions in the AQTAC vote, both committees voted unanimously to concur with the Department's recommendation to move the proposed rulemaking forward to the Board for consideration. The proposed rulemaking was discussed with the Citizens Advisory Council (CAC) Policy and Regulatory Oversight (PRO) Committee on November 9, 2020. On the recommendation of the PRO Committee, on November 17, 2020, the CAC concurred with the Department's recommendation to move the proposed rulemaking forward to the Board. The AQTAC, SBCAC and CAC meetings are advertised and open to the public.

The proposed rulemaking was adopted by the Board at its September 21, 2021, meeting and published at 52 Pa.B. 689 (January 29, 2022). Three public hearings were held on March 1, 3 and 4, 2022, in Harrisburg, Pittsburgh and Norristown, respectively. The 66-day public comment period closed on April 4, 2022. The Department received one public comment. During the public hearings, no one testified. The Independent Regulatory Review Commission (IRRC) separately submitted comments on the proposed rulemaking to the Board on May 4, 2022. The comments received on the proposed rulemaking are summarized in the preamble to this final-form rulemaking and are also addressed in a separate Comment and

Response Document that accompanies this final-form rulemaking. Comments on the proposed rulemaking were considered and addressed.

The Department presented the draft final-form rulemaking to AQTAC on August 18, 2022, and to the SBCAC on August 24, 2022, and briefed the committees on the comments received on the proposed rulemaking. The Department presented the draft final-form rulemaking to the CAC PRO Committee on June 27, 2022. On the recommendation of the PRO Committee, on September 20, 2022, the CAC concurred with the Department's recommendation to present this final-form rulemaking to the Board for consideration.

E. Summary of Final-Form Rulemaking and Changes from Proposed to Final-Form Rulemaking

§ 121.1. Definitions

This final-form rulemaking adds several terms and revises existing definitions to support the amendments under Chapter 129. The revisions to § 121.1 incorporate terms as they are defined in the EPA's CTGs or Federal NSPS regulations.

Subparagraph (ii)(B) in the definition of "nuclear specialty coating" is amended in this final-form rulemaking to add the ASTM test method for demonstrating that a coating is easy to decontaminate. Subparagraph (ii)(A) and (C) are amended for clarity. There are no other changes made to § 121.1 from the proposed rulemaking to this final-form rulemaking.

§ 129.52. Surface coating processes

This final-form rulemaking amends § 129.52 to add VOC RACT requirements and emission limits for shipbuilding and ship repair facilities with surface coating operations consistent with the EPA's 1996 SB CTG.

Subsection (a) is amended to establish that this section applies to a shipbuilding or ship repair facility with a surface coating operation that uses or applies more than 264 gallons of one or a combination of coatings listed in Table I, category 12.

Subsection (c)(1) is amended to require covered facilities to maintain daily records of volume percent of solids for a Table I surface coating process category 12 coating whose VOC content is expressed in units of weight of VOC per volume of coating solids.

Table I is amended to add compliance requirements and emission limits for the VOC content of surface coatings used at shipbuilding or ship repair facilities with coating operations.

This final-form rulemaking amends proposed footnote "b" under § 129.52, Table I, Category 12, to correct the conversion limit from 3,785 liter/gallon to 3.785 liter/gallon. This amendment changes the comma to a decimal point. This change is made in response to comments received on the proposed rulemaking. There are no other changes made to § 129.52 from the proposed rulemaking to this final-form rulemaking.

§ 129.63b. Control of VOC emissions from large petroleum dry cleaners

This section establishes applicability requirements for large petroleum dry cleaners, definitions for terms used in this section, VOC emission limitations, compliance monitoring and testing requirements, recordkeeping and reporting requirements and exemptions. The definitions

for terms used in this section, VOC RACT requirements, limitations and exemptions for large petroleum dry cleaners are consistent with the EPA's 1982 LPDC CTG.

Subsection (a) requires the owner and operator of a petroleum solvent washer, dryer, solvent filter, settling tank, vacuum still, and other containers and conveyors of petroleum solvent used in petroleum dry cleaning facilities which consume 123,000 liters (32,493 gallons) or more of petroleum solvent annually to control their VOC emissions.

Subsection (b) defines the words and terms used in this section, unless the context clearly indicates otherwise.

Subsection (c) establishes the emission limitations for the owner and operator of a petroleum dry cleaning dryer and associated solvent filtration system. This section requires the owner or operator of a petroleum dry cleaning dryer or associated petroleum solvent filtration system to repair a petroleum solvent vapor or liquid leak within 3 working days after identification of the source of the leak.

Subsection (d) establishes compliance monitoring and testing requirements. These requirements include: (1) calculating VOC emissions using EPA test methods and prescribed specifications; (2) verifying the flow rate of recovered solvents to determine compliance; (3) determining compliance by following procedures specified in the subsection; and (4) performing weekly inspections to establish compliance with the requirements of the subsection.

Subsection (e) requires the owner or operator of a petroleum dry cleaning facility subject to this section to maintain records sufficient to demonstrate compliance.

Subsection (f) requires the owner or operator of a petroleum dry cleaning facility, who claims an exemption to certain requirements in proposed subsections (c)—(e), to maintain records of annual solvent consumption onsite for 5 years. This recordkeeping requirement enables the Department to verify that the applicability threshold in subsection (a) has not been exceeded.

This final-form rulemaking amends § 129.63b(e)(2) to delete the word "subsections" and add the word "subsection." There are no other changes made to § 129.63b from the proposed rulemaking to this final-form rulemaking.

§ 129.71a. Control of VOC emissions from the synthetic organic chemical manufacturing industry—air oxidation, distillation and reactor processes

This section establishes applicability requirements for a SOCMI facility and the standards for process vents, air oxidation unit processes, distillation operations and reactor processes. This section adds a table that lists regulated SOCMI chemicals. The VOC RACT requirements, emission limitations and exemptions in this section for SOCMI facility air oxidation, distillation and reactor processes are consistent with the EPA's 1984 SOCMI CTG and 1993 SOCMI CTG.

Subsection (a) establishes applicability requirements for the owner and operator of a SOCMI facility that has a vent stream originating from a process unit in which an air oxidation unit process, distillation operation or reactor process produces one or more of the chemicals listed in Table 1 as a product, coproduct, byproduct or intermediate.

Subsection (b) establishes VOC control provisions and standards for process vents from air oxidation unit pro-

cesses, distillation operations and reactor processes for the chemicals listed in Table 1, List of Regulated SOCMI Chemicals.

This final-form rulemaking amends § 129.71a, Table 1, List of Regulated SOCMI Chemicals, to delete three incorrect proposed lines of chemical categories and add two correct lines of chemical categories. The proposed line for the category "alcohols, C-11 or higher, mixtures" is deleted and the two proposed lines for the category "alcohols, C-12 or higher, unmixed" are deleted. The line "alcohols, C-12 or higher, mixtures" is added, with Xs in the columns for reactor and distillation CTG chemicals, distillation NSPS chemicals and reactor process NSPS chemicals. The line for "alcohols, C-12 or higher, unmixed" is added, likewise with Xs in the columns for reactor and distillation CTG chemicals, distillation NSPS chemicals and reactor process NSPS chemicals. There are no other changes made to § 129.71a from the proposed rulemaking to this final-form rulemaking.

F. Summary of Comments and Responses on the Proposed Rulemaking

A commentator suggested a correction to footnote "b" associated with the proposed amendments to § 129.52, Table I, Category 12, Shipbuilding and Ship Repair Coatings. The commentator suggested that footnote "b" should be corrected as follows: "...multiply the limit by (3.785 liter/gallon)." The conversion constant had a comma instead of a decimal point, which would cause the regulated community to perform an improper calculation when converting from metric units to English/Imperial units. The Department agrees with the commentator and makes the requested change.

IRRC provided three comments to the Board on the proposed rulemaking. IRRC requested the Board add a reference to "ASTM 4256-89 or 94" to the definition of "nuclear specialty coating" in this final-form rulemaking. The Department adds the requested ASTM reference to the definition of "nuclear specialty coating."

IRRC asked that a definition of the term "as supplied" be added to this final-form rulemaking to support the definition of "thinning ratio." The Department responds that the term "as supplied" is already defined in § 121.1 and reads as follows:

As supplied—

(i) The VOC and solids content of a coating, adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent or cleanup solvent as sold and delivered to the end user.

(ii) For purposes of §§ 129.67a and 129.67b, the VOC concentration of an ink, coating, adhesive, fountain solution or cleaning solution that is purchased for use on a printing press.

IRRC suggested that the correction be made to the typographical error in footnote "b" as specified by the commentator. The Department makes this change.

There were no comments received from the House and Senate Environmental Resources and Energy Committees.

G. Benefits, Costs and Compliance

Benefits

The Statewide implementation of the VOC emission control measures in this final-form rulemaking, along with other Federally enforceable VOC emission control measures in the Commonwealth's SIP, will benefit the health and welfare of the approximately 12.8 million

residents and the numerous animals, crops, vegetation and natural areas of this Commonwealth by controlling emissions of VOCs, which are precursors to the formation of ground-level ozone air pollution. Exposure to high concentrations of ground-level ozone is a serious human and animal health threat, causing respiratory illnesses and decreased lung function, leading to a lower quality of life. Improved ambient concentrations of ground-level ozone will reduce the incidences of hospital admissions for respiratory ailments, including asthma, and improve the quality of life for citizens overall. While children, the elderly and those with respiratory problems are most at risk, even healthy individuals may experience increased respiratory ailments and other symptoms when they are exposed to high levels of ambient ground-level ozone while engaged in activities that involve physical exertion.

Improved ambient concentrations of ground-level ozone will also lead to better social well-being through improved growth and yields of agricultural crop and commercial forest products, as well as increased survival of ornamental trees and shrubs used in residential and business-park landscaping. In addition to causing adverse human and animal health effects, the EPA has concluded that high levels of ground-level ozone affect vegetation and ecosystems, leading to reductions in agricultural crop and commercial forest yields by destroying chlorophyll; reduced growth and survivability of tree seedlings; and increased plant susceptibility to disease, pests and other environmental stressors, including harsh weather. In long-lived species, these effects may become evident only after several years or even decades and have the potential for long-term adverse impacts on forest ecosystems. Ozone damage to the foliage of trees and other plants can decrease the aesthetic value of ornamental species used in residential landscaping, as well as the natural beauty of parks and recreation areas.

In addition to the emissions benefits, the owners and operators of new sources of VOCs for the covered source categories will not need to have individual operating permit requirements incorporated into the Commonwealth's SIP to meet Federal CAA RACT obligations. This will make addressing operating permit changes and source modifications for affected owners and operators easier and more efficient for future expansion of facilities and businesses in this Commonwealth.

Compliance costs

The RACT emission limitations established by this final-form rulemaking will not require the submission of applications for amendments to existing operating permits. The owners and operators of the two shipbuilding and ship repair surface coating facilities under the Department's jurisdiction in this Commonwealth already have the applicable requirements or their equivalent incorporated in their operating permits. There are no large petroleum dry cleaners operating at or above the final-form applicable petroleum solvent usage threshold in this Commonwealth. The owners and operators of the affected SOCMIs in this Commonwealth already have the EPA's NSPS standards incorporated into their existing operating permits. The final-form regulatory requirements will be incorporated into the operating permits as applicable requirements at the time of permit renewal, if less than 3 years remain in the permit term, as specified under § 127.463(c) (relating to operating permit revisions to incorporate applicable standards). If 3 years or more remain in the permit term, the requirements will be incorporated as applicable requirements in the operating permit within 18 months of the promulga-

tion of this final-form rulemaking, as required under § 127.463(b). Most importantly, § 127.463(e) specifies that "[r]egardless of whether a revision is required under this section, the permittee shall meet the applicable standards or regulations promulgated under the Clean Air Act within the time frame required by standards or regulations." Consequently, upon promulgation, the applicable requirements of this final-form rulemaking will apply to affected owners and operators irrespective of a modification to the operating permit. Therefore, the owners and operators of affected facilities may each realize a savings equal to the fee for submitting an application for an amendment to an existing operating permit, along with the reduced administrative burden and associated costs of publishing the amended operating permit for public comment as a revision to the SIP, if an amendment to the permit application is not required.

There are no anticipated costs associated with this final-form rulemaking. This final-form rulemaking is designed to address administrative issues associated with the lack of SIP-approved Federally enforceable CTG RACT-based requirements for these source categories in this Commonwealth. The Department anticipates cost savings for facility owners and operators and the Department as there will be no need to submit amendments to operating permits to the EPA as revisions to the SIP, especially for those owners and operators who incorporate the presumptive RACT requirements of this final-form rulemaking into their operating permits and for when a facility owner or operator needs to make permit modifications. The exact cost savings to owners and operators in terms of time and resources for avoiding SIP revisions or permitting actions will vary by type of facility and type of permitting action.

Compliance costs for the owners and operators of affected shipbuilding and ship repair surface coating operations, SOCMIs processes and large petroleum dry cleaners that result from this final-form rulemaking are expected to be negligible. The owners and operators of affected sources are already subject to requirements in their operating permits that are at least as stringent as the CTG RACT-based final-form requirements for each specific source category. Compliance with the applicable requirements in their operating permit will ensure compliance with the applicable requirements of this final-form rulemaking. The owners and operators of newly installed affected facilities are also subject to Best Available Technology (BAT) and NSPS requirements that are at least as stringent as the final-form RACT requirements or have other operating permit conditions in place that are at least as stringent as the final-form RACT requirements. Compliance with the applicable BAT and NSPS requirements and other requirements will ensure compliance with the applicable final-form RACT requirements.

Compliance assistance plan

The Department will continue to educate and assist the public and the regulated community in understanding the final-form requirements and how to comply with them after promulgation of this final-form rulemaking. The Department will continue to work with the Department's provider of Small Business Stationary Source Technical and Environmental Compliance Assistance as well to provide assistance to the owners and operators of affected small businesses. These services are currently provided by the Environmental Management Assistance Program (EMAP) of the Pennsylvania Small Business Development Centers. The Department has partnered with EMAP to fulfill the Department's obligation to provide confidential

technical and compliance assistance to small businesses as required by the APCA and section 507 of the CAA (42 U.S.C.A. § 7661f) and as authorized by the Small Business and Household Pollution Prevention Program Act (35 P.S. §§ 6029.201—6029.209).

In addition to providing one-on-one consulting assistance and onsite assessments, EMAP also operates a toll-free phone line to field questions from small businesses in this Commonwealth, as well as businesses wishing to start up in or relocate to this Commonwealth. EMAP operates and maintains a resource-rich environmental assistance web site and distributes an electronic newsletter to educate and inform small businesses about a variety of environmental compliance issues.

Paperwork requirements

The recordkeeping and reporting requirements for owners and operators of sources subject to this final-form rulemaking are minimal because the records required are in line with the records already required to be kept for emission inventory purposes and for other Federal and State requirements.

H. Pollution Prevention

The Pollution Prevention Act of 1990 (42 U.S.C.A. §§ 13101—13109) established a National policy that promotes pollution prevention as the preferred means for achieving State environmental protection goals. The Department encourages pollution prevention, which is the reduction or elimination of pollution at its source, through the substitution of environmentally friendly materials, more efficient use of raw materials and the incorporation of energy efficiency strategies. Pollution prevention practices can provide greater environmental protection with greater efficiency because they can result in significant cost savings to the owners and operators of facilities that permanently achieve or move beyond compliance.

In conjunction with other Federally enforceable control measures, implementation of the final-form RACT requirements will allow the Department and approved local air pollution control county agencies to maintain existing VOC emission reductions and potentially gain additional VOC emission reductions from the regulated sources in this Commonwealth, sustain the gains made in healthful air quality and ensure continued protection of the environment and the public health and welfare of the citizens of this Commonwealth. These regulations are reasonably necessary to attain and maintain the 2008 and 2015 ozone NAAQS and to satisfy related CAA requirements. Following publication as a final-form rulemaking in the *Pennsylvania Bulletin*, this final-form rulemaking will be submitted to the EPA for approval as a revision to the Commonwealth's SIP.

I. Sunset Review

The Board is not establishing a sunset date for this final-form rulemaking because this rulemaking is needed for the Department to carry out its statutory authority. The Department will closely monitor this final-form rulemaking after promulgation as a final-form regulation in the *Pennsylvania Bulletin* for its effectiveness and recommend updates to the Board as necessary.

J. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on January 4, 2022, the Department submitted a copy of the notice of proposed rulemaking, published at 52 Pa.B. 689, and a copy of a Regulatory

Analysis Form to IRRC and to the Chairpersons of the Senate and House Environmental Resources and Energy Committees for review and comment.

Under section 5(c) of the Regulatory Review Act, IRRC and the House and Senate Committees were provided with copies of the comments received during the public comment period, as well as other documents when requested. In preparing the final-form rulemaking, the Department has considered all comments from IRRC, the Senate and House Committees and the public.

Under section 5.1(j.2) of the Regulatory Review Act (71 P.S. § 745.5a(j.2)), on November 16, 2022, this final-form rulemaking was deemed approved by the Senate and House Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on November 17, 2022, and approved the final-form rulemaking.

K. Findings of the Board

The Board finds that:

(1) Public notice of the proposed rulemaking was given under sections 201 and 202 of the act of July 31, 1968 (P.L. 769, No. 240) (45 P.S. §§ 1201 and 1202), referred to as the Commonwealth Documents Law, and regulations promulgated thereunder at 1 Pa. Code §§ 7.1 and 7.2 (relating to notice of proposed rulemaking required; and adoption of regulations).

(2) At least a 60-day public comment period was provided as required by law and all comments were considered.

(3) This final-form rulemaking does not enlarge the purpose of the proposed rulemaking published at 52 Pa.B. 689.

(4) These regulations are necessary and appropriate for administration and enforcement of the authorizing acts identified in section C of this order.

(5) These regulations are reasonably necessary to attain and maintain the 2008 and 2015 ozone NAAQS and to satisfy related CAA requirements.

L. Order of the Board

The Board, acting under the authorizing statutes, orders that:

(a) The regulations of the Department, 25 Pa. Code Chapters 121 and 129, are amended by adding §§ 129.63b and 129.71a and amending §§ 121.1 and 129.52 to read as set forth in Annex A, with ellipses referring to the existing text of the regulations.

(b) The Chairperson of the Board shall submit this final-form rulemaking to the Office of General Counsel and the Office of Attorney General for review and approval as to legality and form, as required by law.

(c) The Chairperson of the Board shall submit this final-form rulemaking to IRRC and the Senate and House Environmental Resources and Energy Committees as required by the Regulatory Review Act (71 P.S. §§ 745.1—745.14).

(d) The Chairperson of the Board shall certify this final-form rulemaking and deposit it with the Legislative Reference Bureau, as required by law.

(e) This final-form rulemaking will be submitted to the EPA as a revision to the Commonwealth's SIP.

(f) This final-form rulemaking shall take effect immediately upon publication in the *Pennsylvania Bulletin*.

RICHARD NEGRIN,
Acting Chairperson

(*Editor’s Note:* See 52 Pa.B. 7487 (December 3, 2022) for IRRC’s approval order.)

Fiscal Note: Fiscal Note 7-568 remains valid for the final adoption of the subject regulations.

Annex A

**TITLE 25. ENVIRONMENTAL PROTECTION
PART I. DEPARTMENT OF ENVIRONMENTAL
PROTECTION**

**Subpart C. PROTECTION OF NATURAL
RESOURCES**

ARTICLE III. AIR RESOURCES

CHAPTER 121. GENERAL PROVISIONS

§ 121.1. Definitions.

The definitions in section 3 of the act (35 P.S. § 4003) apply to this article. In addition, the following words and terms, when used in this article, have the following meanings, unless the context clearly indicates otherwise:

* * * * *

Air dried coating—Coatings which are dried by the use of air or forced warm air at temperatures up to 194°F.

Air flask specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52 (relating to surface coating processes), Table I, category 12, a special composition coating that is:

- (i) Applied to interior surfaces of high-pressure breathing air flasks to provide corrosion resistance.
- (ii) Certified as safe for use with breathing air supplies.

Airless cleaning system—A solvent cleaning machine that is automatically operated and seals at a differential pressure of 0.50 pounds per square inch gauge (psig) or less, prior to the introduction of solvent or solvent vapor into the cleaning chamber and maintains differential pressure under vacuum during all cleaning and drying cycles.

Airless spray—A spray coating method in which the coating is atomized by forcing it through a small nozzle opening at high pressure. The coating is not mixed with air before exiting from the nozzle opening.

Air oxidation reactor—For purposes of § 129.71a (relating to control of VOC emissions from the synthetic organic chemical manufacturing industry—air oxidation, distillation and reactor processes):

- (i) A device or process vessel in which one or more organic reactants are combined with air, or a combination of air and oxygen, to produce one or more organic compounds.
- (ii) The term includes ammoxidation and oxychlorination reactions.

Air pollution—The presence in the outdoor atmosphere of any form of contaminant, including, but not limited to, the discharging from stacks, chimneys, openings, buildings, structures, open fires, vehicles, processes or any other source of any smoke, soot, fly ash, dust, cinders, dirt, noxious or obnoxious acids, fumes, oxides, gases, vapors, odors, toxic, hazardous or radioactive substances,

waste or other matter in a place, manner or concentration inimical or which may be inimical to public health, safety or welfare or which is or may be injurious to human, plant or animal life or to property or which unreasonably interferes with the comfortable enjoyment of life or property.

* * * * *

Ambient air quality standards—Concentrations of air contaminants in the ambient air, as provided for in Chapter 131 (relating to ambient air quality standards).

Antenna specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a coating applied to equipment through which electromagnetic signals must pass for reception or transmission.

Antichafe coating—A coating applied to areas of moving aerospace components that may rub during normal operations or installation.

Antifoulant specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a coating that is:

- (i) Applied to the underwater portion of a vessel to prevent or reduce the attachment of biological organisms.
- (ii) Registered with the EPA as a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C.A. §§ 136—136y).

Antique aerospace vehicle or component—An antique aircraft, as defined by 14 CFR Part 45 (relating to identification and registration marking), or components thereof. An antique aerospace vehicle would not routinely be in commercial or military service in the capacity for which it was designed.

* * * * *

Best available technology—Equipment, devices, methods or techniques as determined by the Department which will prevent, reduce or control emissions of air contaminants to the maximum degree possible and which are available or may be made available.

Bitumens—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, black or brown materials that consist mainly of hydrocarbons and are soluble in carbon disulfide.

Bituminous resin specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12:

- (i) A coating that incorporates bitumens as a principal component and is formulated primarily to be applied to a substrate or surface to resist ultraviolet radiation or water, or both.
- (ii) The term is included in the specialty coating category “repair and maintenance of thermoplastic coating of commercial vessels.”

Blender—A person who owns, leases, operates, controls or supervises an oxygenate blending facility.

* * * * *

Closed-cycle depainting system—A dust free, automated process that removes a permanent coating in small sections at a time and maintains a continuous vacuum around the area being depainted to capture emissions.

Coal tar—A dark thick liquid that forms as a byproduct of the process of producing coke from coal.

Coal tar epoxy coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category

12, a black surface protection polymer that is a blend of various epoxy resins and coal tar used on surfaces subjected to extremely corrosive environments.

Coating—

(i) For purposes of wood furniture manufacturing operations under §§ 129.101—129.107, a protective, decorative or functional material applied in a thin layer to a surface.

(A) The term includes paints, topcoats, clear coats, varnishes, sealers, stains, washcoats, basecoats, inks and temporary protective coatings.

(B) The term does not include adhesives.

(ii) For purposes of paper, film and foil surface coating under § 129.52b (relating to control of VOC emissions from paper, film and foil surface coating processes), a material applied onto or impregnated into a substrate for decorative, protective or functional purposes.

(A) The term includes solvent-borne coatings, water-borne coatings, adhesives, wax coatings, wax laminations, extrusion coatings, extrusion laminations, 100% solid adhesives, UV-cured coatings, electron beam-cured coatings, hot melt coatings and cold seal coatings.

(B) The term does not include materials used to form unsupported substrates, such as calendaring of vinyl, blown film, cast film, extruded film and co-extruded film.

(iii) For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a material that is applied in a thin layer to a substrate and which cures to form a continuous solid film.

* * * * *

Cold shutdown—A cold repair or replacement of damaged or worn refractory parts of a glass melting furnace while the furnace does not contain molten glass.

Cold weather time period—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a time during which the ambient temperature is below 4.5°C (40°F) and coating is to be applied.

Combustion efficiency—A measure of the extent of a combustion reaction, abbreviated C. E. and computed as follows:

$$C. E. = \frac{[CO_2]}{[CO_2] + [CO]} \times 100\%$$

where: [CO₂] = concentration of carbon dioxide and
[CO] = concentration of carbon monoxide

* * * * *

Container glass—Glass manufactured by pressing, blowing in molds, drawing, rolling or casting which is used as a container.

Container of coating—The bucket, pot, can or other holder from which the coating is applied.

Continuous coater—A surface coating process that continuously applies coatings onto parts moving along a conveyor. Coatings that are not transferred to the part are recycled to a reservoir. Several types of application methods can be used with a continuous coater including spraying, curtain coating, roller coating, dip coating and flow coating.

* * * * *

Cryoprotective coating—A coating applied to aerospace vehicles or components that:

(i) Insulates cryogenic or subcooled surfaces to limit propellant boil-off.

(ii) Maintains structural integrity of metallic structures during ascent or reentry.

(iii) Prevents ice formation.

Cure volatile—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12:

(i) A reaction product which is emitted during the chemical reaction which takes place in some coating films at the cure temperature.

(ii) The reaction product emissions are other than those from the solvents in the coating and may, in some cases, comprise a significant portion of total VOC or HAP emissions, or both.

Curtain coating—The application of a coating to an object by moving the object through a falling curtain of coating.

* * * * *

Dispersion technique—An attempt to affect the concentration of a pollutant in the ambient air by methods contained in 40 CFR 51.100(gg)—(kk) (relating to definitions).

Distillation operation—For purposes of § 129.71a:

(i) A process that separates one or more feed streams into two or more exit streams, with each exit stream having component concentrations different from those in the feed streams.

(ii) The separation is achieved by the redistribution of the components between the liquid phase and vapor phase as they approach equilibrium within the distillation unit.

Distributor—

(i) A person who transports, stores or causes the transportation or storage of gasoline at any point between a refinery, blending facility or terminal and a retail outlet or wholesale purchaser-consumer's facility.

(ii) For purposes of § 123.22 (relating to combustion units), a person who transports, stores or causes the transportation or storage of commercial fuel oil at any point between a refinery, blending facility or terminal and a retail outlet, wholesale purchaser-consumer's facility or ultimate consumer.

(iii) The term includes a refinery, a blending facility or a terminal.

* * * * *

Engineered wood panel product—A derivative wood product that is manufactured by binding together the strands, particles, fibers or veneers of wood with adhesives, resins, other coatings or additives, or a combination of these, to form a composite material. The manufacturing process may also use heat or pressure, or both, to form the product. The product is manufactured to precise design specifications which are tested to meet National or international standards.

Epoxy coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a thermoset coating formed by reaction of a resin containing a reactive epoxide with a curing agent.

Epoxy polyamide topcoat—A coating applied to aerospace vehicles or components when harder films are required or in some areas where engraving is accomplished in camouflage colors.

* * * * *

General plan approval—A plan approval issued for a category of stationary air contamination sources that the Department determines are similar in nature and that can be adequately regulated using standardized specifications and conditions.

General use coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12:

- (i) A coating that is not a specialty coating.
- (ii) The term includes coal tar epoxy coating.

Generation—With respect to ERCs, an action taken by an owner or operator of an air contamination source, emissions unit or facility that results in the actual reduction of emissions.

* * * * *

Heat input—Heat derived from the combustion of fuel in a NO_x affected source. The term does not include the heat derived from preheated combustion air, recirculated flue gas or exhaust from another source or combination of sources.

Heat resistant specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a coating that must withstand a temperature of at least 204°C (400°F) during normal use.

Heatset—An operation in which heat is required to evaporate ink oils from the printing inks that are applied to the substrate.

* * * * *

Heavy-duty diesel vehicle—A diesel-powered motor vehicle with a GVWR of greater than 14,000 pounds.

High-gloss specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a coating that achieves at least 85% reflectance on a 60° meter when tested by ASTM Method D-523, “Standard Test Method for Specular Gloss.”

High temperature coating—For purposes of § 129.73, an aerospace vehicle or component coating designed to withstand temperatures of more than 350°F.

High-temperature specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a coating that must withstand a temperature of at least 426°C (800°F) during normal use.

High volume-low pressure spray—The application of a coating by means of a gun which operates between 0.1 and 10.0 psig air pressure.

* * * * *

Inner zone of the Southeast Pennsylvania air basin—Philadelphia County; the following political subdivision in Bucks County: Bensalem Township, Bristol Borough, Bristol Township, Falls Township, Morrisville Borough and Tullytown Borough; the following political subdivisions in Montgomery County: Abington Township, Bridgeport Borough, Bryn Athyn Borough, Cheltenham Township, Conshohocken Borough, East Norriton Township, Jenkintown Borough, Lower Merion Township, Lower Moreland Township, Narberth Borough, Norristown Borough, Plymouth Township, Rockledge Borough, Springfield Township, Upper Merion Township, West Conshohocken Borough, West Norriton Township and Whitmarsh Township; and all of Delaware County except

for Bethel Township, Birmingham Township, Chester Heights Borough, Concord Township, Edgemont Township, Newton Township and Thornbury Township.

Inorganic zinc (high-build) primer specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a coating that:

- (i) Contains 960 g/l (8 lb/gal) or more of elemental zinc incorporated into an inorganic silicate binder that is applied to steel to provide galvanic corrosion resistance.
- (ii) Is typically applied at more than 2 mils dry film thickness.

Insulation covering—Material that is applied to foam insulation to protect the insulation from mechanical or environmental damage.

* * * * *

LDT—light-duty truck—

(i) For purposes of § 129.52, a light-duty truck is a motor vehicle rated at 8,500 pounds gross vehicle weight or less which is designed primarily for purposes of transportation or major components of the vehicle, including, but not limited to, chassis, frames, doors and engines.

(ii) For purposes of Chapter 126, Subchapter D (relating to the Pennsylvania Clean Vehicles Program), a light-duty truck is a motor vehicle rated at 8,500 pounds gross vehicle weight or less which is designed primarily for purposes of transportation of property or is a derivative of such a vehicle, or is available with special features enabling off-street or off-highway operation and use.

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Marine deck sealant or marine deck sealant primer—A sealant or sealant primer labeled for application to wooden marine decks.

Maximum allowable thinning ratio—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, the maximum volume of thinner that can be added per volume of coating without violating the applicable VOC limit in § 129.52, Table I, category 12.

Maximum heat input capacity—The maximum steady state heat input under which a source may be operated as determined by its physical design and characteristics. Maximum heat input capacity is expressed in millions of British Thermal Units (MMBtu) per unit of time.

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Metalized epoxy coating—A coating applied to aerospace vehicles or components that contains relatively large quantities of metallic pigmentation for appearance or added protection, or both.

Military exterior specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12:

- (i) An exterior topcoat applied to a military or United States (U.S.) Coast Guard vessel that is subject to specific chemical, biological or radiological washdown requirements.
- (ii) The term is also known as a chemical agent resistant coating.

Minor operating permit modification—A change to incorporate de minimis conditions and other insignificant

physical changes to a source or applicable requirements into an existing permit or a change that does not require plan approval but which contravenes an express permit term. The term does not include the following:

* * * * *

Miscellaneous metal parts and products—Items made of ferrous or nonferrous metals, including large farm machinery, small farm machinery, small appliances, commercial and industrial machinery, fabricated metal products and items listed under the Standard Industrial Classification Codes 3300—3999. The term does not include cans, coils, automobiles, light-duty trucks, metal furniture, magnet wire, large appliances, aerospace vehicles or components and automobile refinishing and customized top coating of automobiles and trucks, if production since January 1, 1987, has not exceeded 34 vehicles per day.

Mist specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a low viscosity, thin film, epoxy coating applied to an inorganic zinc primer that penetrates the porous zinc primer and allows the occluded air to escape through the paint film prior to curing.

Mobile air contamination source—An air contamination source, including, but not limited to, automobiles, trucks, tractors, buses and other motor vehicles; railroad locomotives; ships, boats and other waterborne craft. The term does not include a source mounted on a vehicle, whether the mounting is permanent or temporary, which source is not used to supply power to the vehicle.

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Natural-finish hardwood plywood panel—A panel on which the original grain pattern is enhanced by an essentially transparent finish frequently supplemented by filler and toner.

Navigational aids specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a coating applied to a U.S. Coast Guard buoy or other U.S. Coast Guard waterway marker when it is recoated aboard ship at its usage site and immediately returned to the water.

Necessary preconstruction approvals or permits—Those permits or approvals required under the Clean Air Act or the act and regulations adopted under the acts, which are part of the applicable SIP.

* * * * *

Non-Phase 2 outdoor wood-fired boiler—An outdoor wood-fired boiler that has not been certified or qualified by the EPA as meeting a particulate matter emission limit of 0.32 pounds per million Btu output or lower and is labeled accordingly.

Nonskid specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a coating applied to the horizontal surfaces of a marine vessel for the specific purpose of providing slip resistance for personnel, vehicles or aircraft.

Nonspecific particulate matter—Particulate matter which is nonodorous and nonirritating, including, but not limited to, alundum, calcium carbonate, cellulose, portland cement, graphite, gypsum, limestone, magnesite, starch, tin oxide and glycerine mist.

Nonstructural adhesive—An adhesive applied to aerospace vehicles or components that bonds nonload bearing aerospace components in noncritical applications and is not included in any other specialty adhesive categories.

Nonvolatiles—Substances that do not evaporate readily. The term:

- (i) Refers to the film-forming material of a coating.
- (ii) Is also known as solids.

Normally closed—A container or piping system that remains closed unless an operator is actively engaged in adding or removing material.

Normally closed container—A container that is closed unless an operator is actively engaged in activities such as emptying or filling the container.

Northeast Ozone Transport Region—The ozone transport region which includes this Commonwealth as established by section 184(a) of the Clean Air Act.

Nuclear specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12:

(i) A protective coating used to seal porous surfaces such as steel or concrete that otherwise would be subject to intrusion by radioactive materials.

(ii) The coating must meet the following:

(A) Be resistant to long-term (service life) cumulative radiation exposure as determined by ASTM D4082-89, “Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants.”

(B) Be relatively easy to decontaminate as determined by ASTM D4256-89 or 94, reapproved 1994, “Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants.”

(C) Be resistant to various chemicals to which the coating is likely to be exposed as determined by ASTM D 3912-80, reapproved 1989, “Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants.”

O₂—Oxygen.

* * * * *

Operating parameter value—A minimum or maximum value established for a control device or process parameter that, if achieved by itself or in combination with one or more other operating parameter values, determines whether an owner or operator has complied with an applicable emission limitation or standard.

* * * * *

Organic liquid cargo vessel—A tanker, freighter, barge, vessel, ship or boat used for the bulk transport of organic liquid cargo.

Organic zinc specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a coating derived from zinc dust incorporated into an organic binder that contains more than 960 g/l (8 lb/gal) of elemental zinc, as applied, and that is used for the express purpose of corrosion protection.

Outdoor floor covering installation adhesive—An adhesive intended by the manufacturer for use in the installation of floor covering that is both of the following:

- (i) Not in an enclosure.
- (ii) Exposed to ambient weather conditions during normal use.

* * * * *

Plastics—Synthetic materials chemically formed by the polymerization of organic (carbon-based) substances. Plas-

tics are usually compounded with modifiers, extenders or reinforcers and are capable of being molded, extruded, cast into various shapes and films or drawn into filaments.

Pleasure craft—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a marine or fresh-water vessel used by an individual for noncommercial, nonmilitary or recreational purposes that is less than 20 meters in length, including a vessel rented exclusively to or chartered for individuals for such purposes.

Plywood—A structural material made of layers of laminated plies of veneers or layers of wood glued together, usually with the grains of adjoining layers at right angles to each other.

* * * * *

Pretreatment coating—An organic coating that contains at least 0.5% acids by weight and is applied directly to metal surfaces of aerospace vehicles and components to provide surface etching, corrosion resistance, adhesion and ease of stripping.

Pretreatment wash primer specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a coating that contains a minimum of 0.5% acid, by mass, and is applied only to bare metal to etch the surface and enhance adhesion of a subsequent coating.

Primary furnace combustion system—The burners in a glass melting furnace that are used during production of glass.

* * * * *

Process heater—

(i) An enclosed device using controlled flame, that is not a boiler, the primary purpose of which is to transfer heat to a process material or to a heat transfer material for use in a process unit.

(ii) The term does not include an enclosed device that meets either of the following circumstances:

- (A) Has the primary purpose of generating steam.
- (B) In which the material being heated is in direct contact with the products of combustion, including:
 - (I) A furnace.
 - (II) A kiln.
 - (III) An unfired waste heat recovery heater.
 - (IV) A unit used for comfort heat, space heat or food preparation for onsite consumption.
 - (V) An autoclave.

Process vent—For purposes of § 129.71a, the point of discharge to the atmosphere or the point of entry into a control device of a gas stream from a unit operation subject to § 129.71a.

Project—A physical change in or change in the method of operation of an existing facility, including a new emissions unit.

* * * * *

Reactor—A vat or vessel, which may be jacketed to permit temperature control, designed to contain chemical reactions.

Reactor process—For purposes of § 129.71a, a unit operation in which one or more chemicals or reactants

other than air are combined or decomposed in a way that their molecular structures are altered and one or more new organic compounds are formed.

Reading air basin—The political subdivisions in Berks County of Bern Township, Cumru Township, Kenhorst Borough, Laureldale Borough, Leesport Borough, Lower Alsace Township, Mohnton Borough, Mt. Penn Borough, Muhlenberg Township, City of Reading, Shillington Borough, Sinking Spring Borough, Spring Township, St. Lawrence Borough, Temple Borough, West Lawn Borough, West Reading Borough, Wyomissing Borough and Wyomissing Hills Borough.

* * * * *

Renewal—The process by which a permit may be reissued at the end of its term.

Repair and maintenance of thermoplastic coating of commercial vessels specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12:

(i) A vinyl, chlorinated rubber or bituminous resin coating that is applied over the same type of existing coating to perform the partial recoating of an in-use commercial vessel.

(ii) The term does not include coal tar epoxy coating, which is considered a “general use” coating.

Replacement source—A new source which is replacing a NO_x affected source where both sources are under common ownership located within this Commonwealth. The NO_x affected source shall be deactivated or permitted only as an emergency standby unit to the replacement source with operation limited to a maximum of 500 hours per year following commencement of operation of the replacement source.

* * * * *

Rubber-based adhesive—A quick setting contact cement applied to aerospace vehicles and components that provides a strong, yet flexible, bond between two mating surfaces that may be of dissimilar materials.

Rubber camouflage specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, an epoxy coating formulated for use as a camouflage topcoat for exterior submarine hulls and sonar domes.

SCAQMD—South Coast Air Quality Management District—The California regional government agency responsible for air pollution control in Los Angeles and Orange counties and parts of Riverside and San Bernardino counties.

* * * * *

Sealant—

(i) For purposes of § 129.73:

(A) A material used to prevent the intrusion of water, fuel, air or other liquids or solids from certain areas of aerospace vehicles or components.

(B) There are two categories of sealants:

- (I) Extrudable/rollable/brushable sealants.
- (II) Sprayable sealants.

(ii) For purposes of § 129.77 and Chapter 130, Subchapter D:

(A) A material with adhesive properties that is formulated primarily to fill, seal, waterproof or weatherproof gaps or joints between two surfaces.

(B) The term includes caulks.

Sealant for thermal spray aluminum specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, an epoxy coating applied to a thermal spray aluminum surface at a maximum film thickness of 1 dry mil.

Sealant primer—A product intended by the manufacturer for application to a substrate, prior to the application of a sealant, to enhance the bonding surface.

* * * * *

Sheet-fed printing—A printing process in which individual sheets of substrate are fed sequentially to the printing press.

Ship—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a marine or freshwater vessel used for military or commercial operations.

(i) The term includes the following:

- (A) Barges.
- (B) Commercial cargo and container vessels.
- (C) Commercial passenger and cruise vessels.
- (D) Dredges.
- (E) Ferries.
- (F) U.S. Military and U.S. Coast Guard vessels.
- (G) Navigational aids like buoys.
- (H) Patrol and pilot boats.
- (I) Self-propelled vessels.
- (J) Tankers.
- (K) Vessels propelled by other craft such as barges.

(ii) The term does not include the following:

- (A) Offshore oil and gas drilling platforms.
- (B) Pleasure craft.

Shipbuilding and ship repair operation—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, the building, repair, repainting, converting or alteration of a ship.

Shutdown—For purposes of §§ 129.301—129.310, the period of time during which a glass melting furnace is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to a cold or ambient temperature as the fuel supply is turned off.

* * * * *

Space vehicle—A manmade device, either manned or unmanned, designed for operation beyond earth's atmosphere.

(i) The term includes integral equipment, such as models, mock-ups, prototypes, molds, jigs, tooling, hardware jackets and test coupons.

(ii) The term also includes auxiliary equipment associated with test, transport and storage, that through contamination can compromise the space vehicle performance.

Special marking specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a coating that is used for safety or identification applications, such as ship numbers and markings on flight decks.

Specialty coating—

(i) For purposes of § 129.73, a coating applied to aerospace vehicles or components that, even though it meets the definition of a primer, topcoat or self-priming topcoat, has additional performance criteria beyond those of primers, topcoats and self-priming topcoats for specific applications. These performance criteria include temperature or fire resistance, substrate compatibility, antireflection, temporary protection or marking, sealing, adhesively joining substrates or enhanced corrosion protection.

(ii) For purposes of shipbuilding and ship repair coatings under § 129.52, a coating that is manufactured or used for one of the specialized shipbuilding and ship repair coating applications listed in Table I, coating categories 12(ii)(a)—(v).

Specialty interior coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a coating used on an interior surface aboard a U.S. military vessel that is required to meet specified fire retardant and low toxicity requirements in addition to the other applicable military physical and performance requirements.

Specialized function coating—A coating applied to aerospace vehicles or components that fulfills extremely specific engineering requirements that are limited in application and are characterized by low volume usage. This category excludes coatings included in other specialty coating categories.

* * * * *

TPY—Tons per year.

Tack specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12, a thin film epoxy coating applied at a maximum film thickness of 2 dry mils to prepare an epoxy coating that has dried beyond the time limit specified by the manufacturer for the application of the next coat.

Tank car—A rail car which is used for transporting liquids in bulk in an unpackaged form.

* * * * *

Thinner—

(i) A volatile liquid that is used to dilute coatings (to reduce viscosity, color strength or solids content or to modify drying conditions).

(ii) For purposes of shipbuilding and ship repair coatings under § 129.52, a liquid that is used to reduce the viscosity of a coating and that evaporates before or during the cure of a film.

(iii) The term includes diluent, makeup solvent, thinning solvent or reducer.

Thinning ratio—The volumetric ratio of thinner to coating, as supplied.

Tileboard—A premium interior wall paneling product made of hardboard that is used in high moisture areas of the home, including kitchens and bathrooms, and which meets the specifications for Class I hardboard approved by the American National Standards Institute.

* * * * *

Undersea-based weapons systems components—The fabrication of parts, parts assembly or completed units of a portion of a missile launching system used on undersea ships.

Undersea weapons systems specialty coating—For purposes of shipbuilding and ship repair coatings under

§ 129.52, Table I, category 12, a coating applied to a component of a weapons system intended to be launched or fired from under the surface of the sea.

Undertread cementing—The application of a solvent-based cement to the underside of a tire tread.

* * * * *

Web printing—A printing process in which continuous rolls of substrate material are fed to the printing press and rewound or cut to size after printing.

Weld-through preconstruction primer specialty coating—For purposes of shipbuilding and ship repair coatings under § 129.52, Table I, category 12:

- (i) A coating that:
 - (A) Provides corrosion protection for steel during inventory.
 - (B) Is typically applied at less than 1 mil dry film thickness.
 - (C) Is temperature resistant (burn back from a weld is less than 1.25 centimeters (0.5 inch)).
 - (D) Does not require removal prior to welding.
 - (E) Does not normally require removal before applying film-building coatings, including an inorganic zinc (high-build) primer specialty coating.

(ii) When constructing new vessels, there may be a need to remove areas of this type of coating due to surface damage or contamination prior to application of film-building coatings.

Wet fastener installation coating—A primer or sealant applied to aerospace vehicles or components by dipping, brushing or daubing on fasteners which are installed before the coating is cured.

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**CHAPTER 129. STANDARDS FOR SOURCES
SOURCES OF VOCs**

§ 129.52. Surface coating processes.

(a) This section applies as follows to the owner and operator of a:

(1) Surface coating process category listed in Table I, categories 1—11, regardless of the size of the facility, which emits or has emitted VOCs into the outdoor atmosphere in quantities greater than 3 pounds (1.4 kilograms) per hour, 15 pounds (7 kilograms) per day or 2.7 tons (2,455 kilograms) per year during any calendar year since January 1, 1987.

(2) Shipbuilding or ship repair facility that has a surface coating operation that uses or applies more than 264 gallons of one or a combination of coatings listed in Table I, category 12, beginning January 21, 2023.

* * * * *

(c) The owner or operator of a facility, regardless of the facility's annual emission rate, which contains surface coating processes shall maintain records sufficient to demonstrate compliance with this section. At a minimum, a facility shall maintain daily records of:

(1) The following parameters for each coating, thinner and other component as supplied:

- (i) The coating, thinner or component name and identification number.
- (ii) The volume used.
- (iii) The mix ratio.
- (iv) The density or specific gravity.
- (v) The weight percent of total volatiles, water, solids and exempt solvents.
- (vi) The volume percent of solids for Table I surface coating process categories 1—10.
- (vii) The volume percent of solids for a Table I surface coating process category 12 coating whose VOC content is expressed in units of weight of VOC per volume of coating solids.

(2) The VOC content of each coating, thinner and other component as supplied.

* * * * *

**Table I
Emission Limits of VOCs in Surface Coatings by Process Category
Weight of VOC per Volume of Coating Solids**

<i>Surface Coating Process Category</i>	<i>lbs VOC per gal coating solids</i>	<i>kg VOC per liter coating solids</i>
1. Can coating		
(a) sheet basecoat	4.62	0.55
(b) can exterior	4.62	0.55
(c) interior body spray	10.05	1.20
(d) two piece can end exterior	10.05	1.20
(e) side-seam spray	21.92	2.63
(f) end sealing compound	7.32	0.88
2. Coil coating	4.02	0.48
3. Fabric coating	4.84	0.58
4. Vinyl coating	7.69	0.92
5. Paper coating	4.84	0.58

<i>Surface Coating Process Category</i>	<i>lbs VOC per gal coating solids</i>	<i>kg VOC per liter coating solids</i>
6. Automobile and light duty truck coating		
(a) prime coat	2.60	0.31
(b) top coat	4.62	0.55
(c) repair	14.14	1.69
7. Metal furniture coating		
8. Magnet wire coating		
9. Large appliance coating		
Categories 1—9 were adopted on April 17, 1979		
10. Miscellaneous metal parts & products		
(a) top coats for locomotives and heavy-duty trucks	6.67	0.80
(b) hopper car and tank car interiors	6.67	0.80
(c) pail and drum interiors	10.34	1.24
(d) clear coatings	10.34	1.24
(e) air-dried coatings	6.67	0.80
(f) extreme performance coatings	6.67	0.80
(g) all other coatings	5.06	0.61
Category 10 was adopted on April 21, 1981		

Weight of VOC per Weight of Coating Solids

	<i>lbs VOC per lb coating solids</i>	<i>kg VOC per kg coating solids</i>
11. Wood furniture manufacturing operations		
(a) Topcoats and enamels	3.0	3.0
(b) Washcoat	14.3	14.3
(c) Final repair coat	3.3	3.3
(d) Basecoats	2.2	2.2
(e) Cosmetic specialty coatings	14.3	14.3
(f) Sealers	3.9	3.9
Category 11 was adopted on May 7, 1988		
12. Shipbuilding and ship repair coatings		

Weight of VOC per Volume of Coating Less Water and Exempt Compounds^{a b}

	<i>lbs VOC per gallon coating less water and exempt compounds</i>	<i>grams VOC per liter coating less water and exempt compounds</i>
(i) General use, including coal tar epoxy coatings	2.83	340
(ii) Specialty coating		
(a) Air flask	2.83	340
(b) Antenna	4.42	530
(c) Antifoulant	3.33	400
(d) Heat resistant	3.50	420
(e) High-gloss	3.50	420
(f) High-temperature	4.17	500
(g) Inorganic zinc high build primer	2.83	340
(h) Military exterior	2.83	340
(i) Mist	5.08	610
(j) Navigational aids	4.58	550

	<i>lbs VOC per gallon coating less water and exempt compounds</i>	<i>grams VOC per liter coating less water and exempt compounds</i>
(k) Nonskid	2.83	340
(l) Nuclear	3.50	420
(m) Organic zinc	3.00	360
(n) Pretreatment wash primer	6.50	780
(o) Repair and maintenance of thermoplastic coating of commercial vessels	4.58	550
(p) Rubber camouflage	2.83	340
(q) Sealant for thermal spray aluminum	5.08	610
(r) Special marking	4.08	490
(s) Specialty interior	2.83	340
(t) Tack	5.08	610
(u) Undersea weapons systems	2.83	340
(v) Weld-through preconstruction primer	5.42	650

Weight of VOC per Volume of Coating Solids^c

	<i>At temperature less than 4.5°C (40°F)^d</i>		<i>At temperature equal to or greater than 4.5°C (40°F)</i>	
	<i>lbs VOC per gallon coating solids</i>	<i>grams VOC per liter coating solids</i>	<i>lbs VOC per gallon coating solids</i>	<i>grams VOC per liter coating solids</i>
(i) General use, including coal tar epoxy coatings	6.07	728	4.76	571
(ii) Specialty coating				
(a) Air flask	6.07	728	4.76	571
(b) Antenna	12.01	1,439	12.01	1,439
(c) Antifoulant	8.10	971	6.38	765
(d) Heat resistant	8.92	1,069	7.02	841
(e) High-gloss	8.92	1,069	7.02	841
(f) High-temperature	13.33	1,597	10.32	1,237
(g) Inorganic zinc high build primer	6.07	728	4.76	571
(h) Military exterior	6.07	728	4.76	571
(i) Mist	18.64	2,235	18.64	2,235
(j) Navigational aids	13.33	1,597	13.33	1,597
(k) Nonskid	6.07	728	4.76	571
(l) Nuclear	8.92	1,069	7.02	841
(m) Organic zinc	6.69	802	5.26	630
(n) Pretreatment wash primer	92.58	11,095	92.58	11,095
(o) Repair and maintenance of thermoplastic coating of commercial vessels	13.33	1,597	13.32	1,597
(p) Rubber camouflage	6.07	728	4.76	571
(q) Sealant for thermal spray aluminum	18.65	2,235	18.65	2,235
(r) Special marking	9.83	1,178	9.83	1,178
(s) Specialty interior	6.07	728	4.76	571
(t) Tack	18.65	2,235	18.65	2,235
(u) Undersea weapons systems	6.07	728	4.76	571
(v) Weld-through preconstruction primer	24.07	2,885	24.07	2,885

^a The limits are expressed in two sets of equivalent units: pounds (lbs) per gallon and grams per liter. Either set of limits may be used to demonstrate compliance.

^b To convert from grams per liter to pounds (lbs) per gallon, multiply the limit by (3.785 liter/gallon) (1/453.6 pound/gram) or 1/120. For compliance purposes, metric units define the standards.

^c VOC limits expressed in units of mass of VOC per volume of solids were derived from the VOC limits expressed in units of mass of VOC per volume of coating less water and exempt compounds by assuming the coating contains no water or exempt compounds and that the volumes of all components within the coating are additive.

^d These limits apply during cold weather time periods, that is, temperatures below 4.5°C (40°F). Cold weather allowances are not given to coatings in categories that allow less than 40% solids (nonvolatiles) content by volume. These coatings are subject to the single limit regardless of weather conditions and temperatures.

Category 12 was adopted on January 21, 2023.

§ 129.63b. Control of VOC emissions from large petroleum dry cleaning facilities.

(a) *Applicability.* This section applies Statewide to the owner and operator of a petroleum solvent washer, dryer, solvent filter, settling tank, vacuum still and other containers and conveyors of petroleum solvent that are used in petroleum dry cleaning facilities that consume 123,000 liters (32,493 gallons) or more of petroleum solvent annually.

(b) *Definitions.* The following words and terms, when used in this section, have the following meanings, unless the context clearly indicates otherwise:

Cartridge filter—A perforated canister containing filtration paper or activated carbon, or both, that is used in a pressurized system to remove solid particles and fugitive dyes from soil-laden solvent.

Consume—The amount of petroleum solvent purchased less the amount of petroleum solvent sent for disposal or returned for recycling during a calendar year.

Containers and conveyors of solvent—Piping, ductwork, pumps, storage tanks and other ancillary equipment that are associated with the installation and operation of petroleum dry cleaning washers, dryers, filters, stills and settling tanks.

Dry cleaning—A process for the cleaning of textiles and fabric products in which articles are washed in a nonaqueous solution (solvent) and then dried by exposure to a heated air stream.

Perceptible leak—A petroleum solvent vapor or liquid leak that is conspicuous from visual observation. The term includes the following:

- (i) A pool or droplet of petroleum solvent liquid.
- (ii) A bucket or barrel of petroleum solvent or petroleum solvent-laden waste standing open to the atmosphere.

Petroleum solvent—A group of organic materials produced by petroleum distillation comprising a hydrocarbon range of 8 to 12 carbon atoms per organic molecule that exists as a liquid under standard conditions.

Petroleum solvent recovery dryer—A class of dry-cleaning dryers that employs a condenser to liquify and recover petroleum solvent vapors evaporated in a closed-loop, recirculating stream of heated air.

(c) *Emission limitations.*

(1) The owner and operator of a petroleum dry cleaning dryer shall do one of the following:

(i) Limit VOC emissions to the atmosphere to an average of 3.5 kilograms (kg) of VOC per 100 kg dry weight of articles dry cleaned.

(ii) Install and operate a petroleum solvent recovery dryer in a manner that the dryer remains closed and the recovery phase continues until a final recovered solvent flow rate of 50 milliliters per minute is attained.

(2) The owner or operator of a petroleum solvent filtration system shall do one of the following:

(i) Reduce the VOC content in filtration wastes to 1.0 kg or less per 100 kg dry weight of articles dry cleaned, before disposal and exposure to the atmosphere.

(ii) Install and operate a cartridge filtration system and drain the filter cartridges in their sealed housings for 8 hours or more before their removal.

(3) The owner or operator of a petroleum dry cleaning dryer or petroleum solvent filtration system shall repair a petroleum solvent vapor or liquid leak within 3 working days after identifying the source of the leak.

(i) If the necessary repair part is not on hand to perform the repair, the owner or operator shall order the part within 3 working days following identification of the source of the leak.

(ii) The owner or operator shall repair the identified leak no later than 3 working days following the arrival of the necessary repair part ordered under subparagraph (i).

(d) *Compliance monitoring and testing requirements.* The owner or operator of a petroleum dry cleaning operation subject to this section shall demonstrate compliance as follows.

(1) To determine compliance with subsection (c)(1)(i), the owner or operator shall do the following:

(i) Calculate the weight of VOC vented from the dryer emission control device using EPA Reference Test Methods 1, 2 and 25A, with the following specifications:

(A) Field calibration of the flame ionization analyzer with propane standards.

(B) Laboratory determination of the ratio of the flame ionization analyzer response to a given parts per million by volume concentration of propane to the response to the same parts per million concentration of the VOC to be measured.

(C) Determination of the weight of VOC emissions vented to the atmosphere by performing the following:

(I) Multiplying the ratio determined in clause (B) by the measured concentration of VOC gas (as propane) as indicated by the flame ionization analyzer response output record.

(II) Converting the parts per million by volume value calculated in subclause (I) into a mass concentration value for the VOCs present.

(III) Multiplying the mass concentration value calculated in subclause (II) by the exhaust flow rate determined by using EPA Reference Test Methods 1 and 2.

(ii) Calculate the dry weight of articles dry cleaned.

(iii) Repeat subparagraphs (i) and (ii) for normal operating conditions that encompass at least 30 dryer loads which meet the following:

(A) Total not less than 1,800 kg dry weight.

(B) Represent a normal range of variations in fabrics, solvents, load weights, temperatures, flow rates and process deviations.

(2) To determine compliance with subsection (c)(1)(ii), the owner or operator shall verify that the flow rate of recovered solvent from the solvent recovery dryer at the termination of the recovery phase is no greater than 50 milliliters per minute by performing the following steps:

(i) Conducting a one-time procedure for a duration of no less than 2 weeks that:

(A) Monitors at least 50% of the dryer loads for their final recovered solvent flow rate.

(B) Measures the flow rate of recovered solvent from the solvent-water separator.

(I) Near the end of the recovery cycle, the flow of recovered solvent should be diverted to a graduated cylinder.

(II) Continue the cycle until the flow rate of the solvent is 50 milliliters per minute.

(ii) Recording the type of articles cleaned and the total length of the cycle measured in subparagraph (i).

(3) To determine compliance with subsection (c)(2)(i) and (ii), the owner or operator shall do the following:

(i) Calculate the weight of VOCs contained in each of five 1-kg samples of filtration waste material taken at intervals of 1 week, using ASTM Method D322-97 (Standard Test Method for Gasoline Diluent in Used Gasoline Engine Oils by Distillation).

(ii) Calculate the total dry weight of articles dry cleaned during the intervals between removal of filtration waste samples, as well as the total mass of filtration waste produced in the same period.

(iii) Calculate the weight of VOCs contained in filtration waste material per 100 kg dry weight of articles dry cleaned.

(4) To determine compliance with subsection (c)(3), the owner or operator shall perform weekly inspections of washers, dryers, solvent filters, settling tanks, vacuum stills and all containers and conveyors of petroleum solvent to identify a perceptible petroleum solvent vapor or liquid leak.

(e) *Recordkeeping and reporting requirements.* The owner or operator of a petroleum dry cleaning facility subject to this section shall maintain records sufficient to demonstrate compliance with this section, including:

(1) Records of the weight of VOC emissions vented from the dryer emission control device, calculated according to subsection (d)(1).

(2) Records of the dry weight of articles dry cleaned for use in the calculations in subsection (d)(1)—(3).

(3) Records of the weight of VOCs contained in the filtration waste samples required in subsection (d)(1)(i).

(4) Records of the weight of VOCs contained in the filtration waste material for each 220 lb (100 kg) dry weight of articles dry cleaned.

(f) *Exemption.* The owner or operator of a petroleum dry cleaning facility subject to subsection (a) claiming exemption from the requirements of subsections (c)—(e) shall maintain records of annual solvent consumption onsite for 5 years to demonstrate that the applicability threshold of subsection (a) has not been exceeded.

§ 129.71a. Control of VOC emissions from the synthetic organic chemical manufacturing industry—air oxidation, distillation and reactor processes.

(a) *Applicability.*

(1) Except as specified in paragraph (3), this section applies to the owner and operator of a synthetic organic chemical manufacturing facility that has a vent stream originating from a process unit in which an air oxidation unit process, distillation operation or reactor process produces one or more of the chemicals listed in Table 1 as a product, coproduct, byproduct or intermediate.

(2) For purposes of this section, reference to total organic compounds or TOC in 40 CFR Part 60, Subpart III (relating to standards of performance for volatile organic compound (VOC) emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) air oxidation unit processes), 40 CFR Part 60, Subpart NNN (relating to standards of performance for volatile organic compound (VOC) emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) distillation operations) or 40 CFR Part 60, Subpart RRR (relating to standards of performance for volatile organic compound (VOC) emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) reactor processes) shall be considered equivalent to VOC as defined in § 121.1 (relating to definitions).

(3) The owner and operator of a synthetic organic chemical manufacturing facility located in this Commonwealth that has a vent stream originating from a process unit in which an air oxidation unit process, distillation operation or reactor process produces one or more of the chemicals listed in Table 1 as a product, coproduct, byproduct or intermediate shall meet the requirements of this section unless more stringent requirements in an applicable permit or plan approval issued by the Department apply.

(b) *Standards.*

(1) *Process vents.* For a process vent that is subject to equivalent VOC control provisions under an existing 40 CFR Part 60 (relating to standards of performance for new stationary sources) or 40 CFR Part 63 (relating to National emission standards for hazardous air pollutants for source categories) standard, compliance with the requirements of the existing 40 CFR Part 60 or 63 standard shall constitute compliance with the provisions of this section.

(2) *Air oxidation unit processes.*

(i) The owner or operator of a source with an air oxidation unit process meeting the applicability criteria in

subsection (a) shall comply with the requirements of 40 CFR Part 60, Subpart III unless the source has RACT control measures approved in a permit as part of the Commonwealth's Federally approved SIP prior to January 21, 2023.

(ii) The exemption listed in 40 CFR 60.610(c) (relating to applicability and designation of affected facility) applies to an owner or operator subject to this section.

(iii) Notwithstanding 40 CFR 60.610, for purposes of this section:

(A) An affected source is one that meets the criteria in 40 CFR 60.610(a) regardless of the specific date of construction, modification or reconstruction of the source for a regulated chemical described in subsection (a)(1) and Table 1.

(B) The owner or operator of an affected source shall comply with this section no later than January 21, 2025.

(iv) Notwithstanding 40 CFR 60.615(a) (relating to reporting and recordkeeping requirements), each owner or operator subject to this section shall notify the Department no later than April 21, 2023, of the method by which the owner or operator of the affected source will comply with the applicable provisions of 40 CFR 60.612 (relating to standards).

(v) For purposes of this section, 40 CFR 60.616 and 40 CFR 60.618 (relating to reconstruction; and delegation of authority) are not applicable.

(vi) Notwithstanding 40 CFR 60.610(d)(4), 60.614(g) (relating to test methods and procedures), 60.615(c), 60.615(g) (but not 60.615(g)(1) or 60.615(g)(4)), and 60.615(j), a reference to the Administrator shall mean the Department.

(vii) Notwithstanding 40 CFR 60.614(c), the Department reserves the option to require testing at other times as may be required.

(3) *Distillation operations.*

(i) The owner or operator of a source with a distillation operation subject to subsection (a) shall comply with the requirements of 40 CFR Part 60, Subpart NNN.

(ii) The following exemptions apply:

(A) The exemptions listed in 40 CFR 60.660(c) (relating to applicability and designation of affected facility).

(B) The owner or operator of a distillation operation with a vent stream that has a total VOC concentration of less than 500 ppmv is subject only to the test method and procedure and the recordkeeping and reporting requirements specified in 40 CFR 60.660(c)(6) and not to the test method and procedure and the recordkeeping and reporting requirements of this section.

(iii) Notwithstanding 40 CFR 60.660, for purposes of this section:

(A) An affected source is one that meets the criteria in 40 CFR 60.660(a), regardless of the specific date of construction, modification or reconstruction of the source.

(B) A regulated chemical is one described in subsection (a)(1) and Table 1, rather than in 40 CFR 60.667 (relating to chemicals affected by subpart NNN).

(C) The owner or operator of an affected source shall comply with this section no later than January 21, 2025.

(iv) Notwithstanding 40 CFR 60.665(a) (relating to reporting and recordkeeping requirements), each owner or

operator subject to this section shall notify the Department no later than April 23, 2023, of the method by which the owner or operator of the affected source will comply with the applicable provisions of 40 CFR 60.662 (relating to standards).

(v) For purposes of this section, 40 CFR 60.666 and 40 CFR 60.668 (relating to reconstruction; and delegation of authority) are not applicable.

(vi) Notwithstanding 40 CFR 60.660(d)(4), 60.664(g)(1) (relating to test methods and procedures), 60.665(c), 60.665(g) (but not 60.665(g)(1)(ii)), 60.665(l), 60.665(n) and 60.665(o), a reference to the Administrator shall mean the Department.

(vii) Notwithstanding 40 CFR 60.664(c), the Department reserves the option to require testing at other times as may be required.

(4) *Reactor processes.*

(i) The owner or operator of a source with a reactor process subject to subsection (a) shall comply with the requirements of 40 CFR Part 60, Subpart RRR.

(ii) The following exemptions apply:

(A) Exemptions listed in 40 CFR 60.700(c) (relating to applicability and designation of affected facility), except that the cutoff for the vent stream flow rate shall be 0.0085 scm/min, not 0.011 scm/min as specified in 40 CFR 60.700(c)(4).

(B) The owner or operator of a reactor operation with a vent stream that has a total VOC concentration of less than 500 ppmv is subject only to the test method and procedure and the recordkeeping and reporting requirements specified in 40 CFR 60.700(c)(8), and not to the test method and procedure and recordkeeping and reporting requirements of this section.

(iii) Notwithstanding 40 CFR 60.700, for purposes of this section:

(A) An affected source is one that meets the criteria in 40 CFR 60.700(a), regardless of the specific date of construction, modification or reconstruction of the source.

(B) A regulated chemical is one described in subsection (a)(1) and Table 1 rather than in 40 CFR 60.707 (relating to chemicals affected by subpart RRR).

(C) The owner or operator of an affected source shall comply with this section no later than January 21, 2025.

(iv) Notwithstanding 40 CFR 60.705(a) (relating to reporting and recordkeeping requirements), each owner or operator subject to this section shall notify the Department no later than April 21, 2023, of the method by which the owner or operator of the affected source will comply with the applicable provisions of 40 CFR 60.702 (relating to standards).

(v) For purposes of this section, 40 CFR 60.706 and 40 CFR 60.708 (relating to reconstruction and delegation of authority) are not applicable.

(vi) Notwithstanding 40 CFR 60.700(d)(4), 60.704(f)(1) (relating to test methods and procedures), 60.705(c), 60.705(f) (but not 60.705(f)(1)), 60.705(l), 60.705(n), 60.705(o), 60.705(p) and 60.705(r), a reference to the Administrator shall mean the Department.

(vii) Notwithstanding 40 CFR 60.704(b)(5)(iii), the Department reserves the option to require testing at other times as may be required.

Table 1. List of Regulated SOCM Chemicals

CAS No. ^a	Chemical name ^b	Reactor and Distillation CTG Chemicals	Air Oxidation CTG Chemicals	Distillation NSPS Chemicals	Reactor Process NSPS Chemicals	Air Oxidation NSPS Chemicals
	1,1,1-Tribromo-2-methyl-2-propanol	X				
584032	1,2 Butanediol	X				
28553-12-0	1,2-Benzenedicarboxylic acid diisononyl ester	X				
524-42-5	1,2-Naphthoquinone (particulate, vapor)		X			
	1,4-Dichloride	X				
109693	1-Chloro-4-nitrobenzene	X				
63-25-2	1-Naphthyl-N-methylcarbamate			X		
3071-32-7	1-Phenylethyl hydroperoxide	X				
221-341-3	1-Phenylethyl hydroperoxide			X		
107-01-7	2-Butene				X	
110-65-6	2-Butyne-1,4-diol				X	
26266682	2-Ethylhexanal			X		
53971-27-0	2-Hydroxy-1,2,3-propanetricarboxylic acid	X				
513-35-9	2-Methylbutenes, mixed	X				
	3-Hydroxybutyraldehyde	X				
617-94-7	a,a-Dimethyl Benzyl Alcohol (2-Phenyl-2-Propanol) (Vapor)		X			
	Acrylic esters	X				
67774-74-7	Alkyl benzene	X				
6358-15-2	Amino-3,4,6-trichlorophenol (2-)	X				
85-68-7	Butylbenzyl Phthalate				X	
1111-78-0	Carbamic acid, mono ammonium salt	X				
126-99-8	Chloroprene			X		
61789-31-9	Coconut oil acids, sodium salt	X				
75-34-3	Dichloropropane (1,1-)	X				
85687	Di-n-heptyl-n-nonyl undecyl phthalate			X		
123-66-0	Ethyl caproate	X				
61790-45-2	Fatty acids, tall oil, sodium salt	X				
123013	Linear alkyl benzene	X				
67774-74-7	Linear alkylbenzene			X		
763-29-1	Methyl-1-pentene (2-)	X				
25377837	Octene -	X				
	Pentenenes, mixed	X				
463-49-0	Propadiene		X			
108-32-7	Propyl carbonate	X				
75-56-9	Propylene Oxide			X		
98-51-1	p-tert-Butyltoluene	X				
61790-32-7	Tallow acids, potassium salt	X				
0000057-13-6	Urea ammonium nitrate	X				
76131	(1,1,2-) Trichloro (1,2,2-) trifluoroethane	X		X	X	
104756	(2-Ethylhexyl) amine	X		X	X	

<i>CAS No.^a</i>	<i>Chemical name^b</i>	<i>Reactor and Distillation CTG Chemicals</i>	<i>Air Oxidation CTG Chemicals</i>	<i>Distillation NSPS Chemicals</i>	<i>Reactor Process NSPS Chemicals</i>	<i>Air Oxidation NSPS Chemicals</i>
85687	1,2-Benzenedicarboxylic acid butyl, phenyl methyl ester -	X				
78875	1,2-diechloropropane	X				
110576	1,4-Dichlorobutene	X		X	X	
106989	1-Butene	X		X	X	
684255	1-Dodecene -	X				
872504	1-Methyl-2-pyrrolidone	X		X	X	
124118	1-Nonene	X				
25167673	1-Phenyl ethyl hydroperoxide	X		X	X	
3071-32-7	1-Phenylethyl hydroperoxide				X	
	2,2'-Iminobisethanol - 11422	X				
11466	2,2'-Oxybisethanol	X				
80568	2,6,6-Trimethylbicyclo (3,1,1) hept-2-ene	X				
78923	2-Butanol	X				
110656	2-Butene	X		X	X	
126998	2-Butyne-1,4-diol	X		X	X	
78897	2-Chloro-1-propanol	X				
1912249	2-Chloro-4-(ethylamino)-6-(isopropylamino)-S-triazine	X		X		
123057	2-Ethylhexanal -	X				
104767	2-Ethylhexanol (2-ethyl-1-hexanol)	X		X	X	
13042029	2-Hexenedinitrile	X		X		
64037543	3,4-Dichloro-1-butene	X		X	X	
1119853	3-Hexenedintrile	X		X		
4635874	3-Pentenenitrile	X		X	X	
1912249	6-Chloro-N-ethyl-N'-(1-methylethyl)-1,3,5-triazine-2,4-diamine -	X				
15547178	6-Ethyl-1,2,3,4-tetrahydro-9,10-antracenedione	X		X	X	
26952216	6-Methyl-heptanol -	X				
83329	Acenaphthene	X				
105577	Acetal (1,1-diethoxy-ethane)	X				
75070	Acetaldehyde -	X	X	X	X	X
107891	Acetaldol (3-hydroxy-butanal) -	X		X		
60355	Acetamide	X				
60355	Acetamides	X				
103844	Acetanilide	X				
64197	Acetic acid -	X	X	X	X	X
108247	Acetic anhydride -	X	X	X	X	
102012	Acetoacetanilide	X				
67641	Acetone -	X	X	X	X	X
75865	Acetone cyanohydrin -	X		X	X	
75058	Acetonitrile -		X			X
98862	Acetophenone -		X			X
75365	Acetyl chloride	X				
74862	Acetylene -	X		X	X	

<i>CAS No.^a</i>	<i>Chemical name^b</i>	<i>Reactor and Distillation CTG Chemicals</i>	<i>Air Oxidation CTG Chemicals</i>	<i>Distillation NSPS Chemicals</i>	<i>Reactor Process NSPS Chemicals</i>	<i>Air Oxidation NSPS Chemicals</i>
79276	Acetylene tetrabromide (1,1,2,2-tetrabromomethane)	X				
107028	Acrolein -		X			X
79061	Acrylamide	X				
79107	Acrylic acid -	X	X	X	X	X
107131	Acrylonitrile -	X	X	X	X	X
124049	Adipic acid -	X		X	X	
111693	Adiponitrile -	X		X	X	
	Alcohols, C-12 or higher, mixtures	X		X	X	
	Alcohols, C-11 or lower, mixtures -	X		X	X	
	Alcohols, C-12 or higher, unmixed	X		X	X	
72480	Alizarin	X				
84651	Alkyl anthraquinones	X				
	Alkyl naphthalene sulfonates	X				
91203	Alkyl naphthalenes	X				
107186	Allyl alcohol	X				
106956	Allyl bromide	X				
107051	Allyl chloride	X		X	X	
109751	Allyl cyanide	X				
7360443	Aluminum acetate	X				
7429905	Aluminum formates	X				
1321115	Aminobenzoic acid	X				
111411	Aminoethylethanolamine	X				
123308	Aminophenol (p-isomer)	X				
96-67-3	Aminophenol sulfonic acid	X				
631618	Ammonium acetate	X				
1762954	Ammonium thiocyanate	X				
	Amyl acetates	X				
71410	Amyl alcohol (n-) (1-pentanol)	X				
75854	Amyl alcohol (tert-)	X				
30899195	Amyl alcohols (mixed)	X				
543599	Amyl chloride (n-)	X				
	Amyl chlorides (mixed)	X				
693652	Amyl ether	X				
110587	Amylamines	X				
513359	Amylene	X		X	X	
	Amylenes, mixed	X		X	X	
62533	Aniline	X		X	X	
142041	Aniline hydrochloride	X				
90040	Anisidine (o-)	X				
100663	Anisole (methoxyl benzene)	X				
120127	Anthracene	X				
118923	Anthranilic acid	X				
84651	Anthraquinone -	X	X			X
25376458	ar-Methylbenzenediamine	X		X	X	
103333	Azobenzene	X				

<i>CAS No.^a</i>	<i>Chemical name^b</i>	<i>Reactor and Distillation CTG Chemicals</i>	<i>Air Oxidation CTG Chemicals</i>	<i>Distillation NSPS Chemicals</i>	<i>Reactor Process NSPS Chemicals</i>	<i>Air Oxidation NSPS Chemicals</i>
543806	Barium acetate	X				
100527	Benzaldehyde -	X	X			X
55210	Benzamide	X				
71432	Benzene -	X	X	X	X	
98486	Benzenedisulfonic acid	X				
98113	Benzenesulfonic acid	X		X	X	
68081812	Benzenesulfonic acid C10-16-alkyl derivatives, sodium salts	X		X	X	
92875	Benzidine	X				
134816	Benzil	X				
76937	Benzillic acid	X				
91769	Benzoguanamine	X				
65850	Benzoic acid -	X	X	X		X
119539	Benzoin	X				
100470	Benzonitrile	X				
119619	Benzophenone	X				
98077	Benzotrichloride	X				
98884	Benzoyl chloride	X				
94360	Benzoyl peroxide	X				
140114	Benzyl acetate	X				
100516	Benzyl alcohol	X				
120514	Benzyl benzoate	X				
100447	Benzyl chloride	X		X	X	
98873	Benzyl dichloride	X				
100469	Benzylamine	X				
1896624	Benzylideneacetone	X				
92524	Biphenyl	X		X		
542881	Bis(Chloromethyl)Ether	X				
80057	Bisphenol A	X		X	X	
	Brometone	X		X	X	
108861	Bromobenzene	X				
75252	Bromoform	X		X		
27497514	Bromonaphthalene	X				
106990	Butadiene (1,3-) -	X	X	X	X	X
	Butadiene and butene fractions	X		X	X	
106978	Butane -	X	X	X	X	
110634	Butanediol (1,4-)	X		X	X	
	Butanes, mixed	X		X	X	
	Butenes, mixed	X		X	X	
123864	Butyl acetate (n-) (Acetic Acid, butyl ester)	X		X	X	
105464	Butyl acetate (sec-)	X				
540885	Butyl acetate (tert-)	X				
141322	Butyl acrylate (n-)	X		X	X	
71363	Butyl alcohol (n-)	X		X	X	
78922	Butyl alcohol (sec-)	X		X	X	

<i>CAS No.^a</i>	<i>Chemical name^b</i>	<i>Reactor and Distillation CTG Chemicals</i>	<i>Air Oxidation CTG Chemicals</i>	<i>Distillation NSPS Chemicals</i>	<i>Reactor Process NSPS Chemicals</i>	<i>Air Oxidation NSPS Chemicals</i>
75650	Butyl alcohol (tert-)	X		X	X	
136607	Butyl benzoate	X				
507200	Butyl chloride (tert-)	X				
75912	Butyl hydroperoxide (tert-)	X		X	X	
109795	Butyl mercaptan (n-)	X				
97881	Butyl methacrylate (n-)	X				
585-07-9	Butyl methacrylate (tert-)	X				
88186	Butyl phenol (tert-)	X				
109739	Butylamine (n-)	X				
13952846	Butylamine (s-)	X				
75649	Butylamine (t-)	X				
98066	Butylbenzene (tert-)	X				
98737	Butylbenzoic acid (p-tert-) -	X	X			X
85867	Butylbenzyl phthalate	X		X	X	
107880	Butylene glycol (1,3-)			X		
123728	Butyraldehyde (n-)	X		X	X	
107926	Butyric acid (n-) -	X	X			X
106310	Butyric anhydride (n-)	X		X	X	
96480	Butyrolactone—must be Butyrolactone	X				
109740	Butyronitrile	X				
62544	Calcium acetate	X				
4075814	Calcium propionate	X				
142621	Caproic acid	X				
105602	Caprolactam	X		X	X	
63252	Carbaryl	X				
86748	Carbazole	X				
75150	Carbon disulfide	X		X	X	
558134	Carbon tetrabromide	X		X		
56235	Carbon tetrachloride	X		X	X	
75730	Carbon tetrafluoride	X				
75876	Chloral	X				
2435532	Chloranil (o-chloranil)	X				
79118	Chloroacetic acid	X			X	
532274	Chloroacetophenone (2-)	X				
108429	Chloroaniline (m-)	X				
95512	Chloroaniline (o-)	X				
106478	Chloroaniline (p-)	X				
89985	Chlorobenzaldehyde (2-)	X				
587042	Chlorobenzaldehyde (3-)	X				
104881	Chlorobenzaldehyde (4-)	X				
108907	Chlorobenzene	X		X	X	
118912	Chlorobenzoic acid (2-)	X				
535808	Chlorobenzoic acid (3-)	X				
74113	Chlorobenzoic acid (4-)	X				
2136892	Chlorobenzotrichloride (o-)	X				

CAS No. ^a	Chemical name ^b	Reactor and Distillation CTG Chemicals	Air Oxidation CTG Chemicals	Distillation NSPS Chemicals	Reactor Process NSPS Chemicals	Air Oxidation NSPS Chemicals
5216251	Chlorobenzotrichloride (p-)	X				
609654	Chlorobenzoyl chloride (o-)	X				
122010	Chlorobenzoyl chloride (p-)	X				
25497294	Chlorodifluoroethane	X				
75456	Chlorodifluoromethane	X			X	
	Chlorofluorocarbons	X				
67663	Chloroform	X		X	X	
	Chlorohydrin	X				
25586430	Chloronaphthalene	X				
121733	Chloronitrobenzene (m-)	X				
88733	Chloronitrobenzene (o-)	X				
100005	Chloronitrobenzene (p-)	X		X	X	
108430	Chlorophenol (m-)	X				
95578	Chlorophenol (o-)	X				
106489	Chlorophenol (p-)	X				
126998	Chloroprene -	X				
7790945	Chlorosulfonic acid	X				
108418	Chlorotoluene (m-)	X				
95498	Chlorotoluene (o-)	X				
106434	Chlorotoluene (p-)	X				
79389	Chlorotrifluoroethylene	X				
67481	Choline chloride	X				
218019	Chrysene	X				
140103	Cinnamic acid	X				
77929	Citric acid	X		X	X	
	Cobalt acetate	X				
142712	Copper acetate	X				
108394	Cresol and cresylic acid (m-)	X				
95487	Cresol and cresylic acid (o-)	X				
106445	Cresol and cresylic acid (p-)	X				
1319773	Cresols and cresylic acids (mixed)	X				
4170300	Crotonaldehyde	X		X		
3724650	Crotonic acid -	X	X	X		X
98828	Cumene -	X	X	X	X	
80159	Cumene hydroperoxide -	X	X	X	X	X
420042	Cyanamide	X				
372098	Cyanoacetic acid	X				
	Cyanoformamide	X				
506774	Cyanogen chloride	X				
108805	Cyanuric acid	X				
108770	Cyanuric chloride	X		X	X	
110827	Cyclohexane -	X	X	X	X	
68512152	Cyclohexane, oxidized	X		X	X	
108930	Cyclohexanol -	X	X	X	X	X
108941	Cyclohexanone -	X	X	X	X	X
100641	Cyclohexanone oxime	X		X	X	

<i>CAS No.^a</i>	<i>Chemical name^b</i>	<i>Reactor and Distillation CTG Chemicals</i>	<i>Air Oxidation CTG Chemicals</i>	<i>Distillation NSPS Chemicals</i>	<i>Reactor Process NSPS Chemicals</i>	<i>Air Oxidation NSPS Chemicals</i>
110838	Cyclohexene	X		X	X	
108918	Cyclohexylamine	X				
29965977	Cyclooctadiene	X				
3806595	Cyclooctadiene (1,3-)			X		
111784	Cyclooctadiene (1,5-)	X				
542-92-7	Cyclopentadiene (1,3-)	X				
75194	Cyclopropane	X		X	X	
91178	Decahydronaphthalene	X				
117828	Di(2-methoxyethyl) phthalate	X				
123422	Diacetone alcohol	X		X	X	
25260-60-0	Diacetoxy-2-Butene (1,4-)	X				
1087-21-4	Diallyl isophthalate	X				
131179	Diallyl phthalate	X				
27576041	Diaminobenzoic acids	X				
137097	Diaminophenol hydrochloride	X				
	Dibutanized aromatic concentrate	X		X		
17-83-9	Dibutoxyethyl phthalate	X				
760236	Dichloro-1-butene (3,4-)	X				
764410	Dichloro-2-butene (1,4-)	X				
27134276	Dichloroaniline (mixed isomers)	X				
541731	Dichlorobenzene (m-)	X				
95501	Dichlorobenzene (o-)	X				
106467	Dichlorobenzene (p-)	X				
91941	Dichlorobenzidine (3,3'-)	X				
75718	Dichlorodifluoromethane	X		X	X	
75785	Dichlorodimethylsilane	X		X	X	
107062	Dichloroethane (1,2-) (Ethylene dichloride) (EDC) -	X	X			
111444	Dichloroethyl ether (bis(2-chloroethyl) ether)	X				
540590	Dichloroethylene (1,2-)	X				
75434	Dichlorofluoromethane	X		X	X	
96231	Dichlorohydrin (a-)	X		X		
99-54-7	Dichloronitrobenzenes	X				
628-76-2	Dichloropentanes	X				
120832	Dichlorophenol (2,4-)	X				
78999	Dichloropropane (1,1-)	X				
542756	Dichloropropene (1,3-)	X				
	Dichloropropene/dichloropropane (mixed)	X				
1320372	Dichlorotetrafluoroethane	X				
461585	Dicyandiamide	X				
101837	Dicyclohexylamine	X				
77736	Dicyclopentadiene	X				
111422	Dietholamine (2,2'-Iminodiethanol)			X	X	
84662	Diethyl phthalate	X				
64675	Diethyl sulfate	X				

<i>CAS No.^a</i>	<i>Chemical name^b</i>	<i>Reactor and Distillation CTG Chemicals</i>	<i>Air Oxidation CTG Chemicals</i>	<i>Distillation NSPS Chemicals</i>	<i>Reactor Process NSPS Chemicals</i>	<i>Air Oxidation NSPS Chemicals</i>
109897	Diethylamine	X				
579668	Diethylaniline (2,6-)	X				
91667	Diethylaniline (N,N-)	X				
25340174	Diethylbenzene	X		X	X	
111466	Diethylene glycol	X		X	X	
112732	Diethylene glycol dibutyl ether	X				
112367	Diethylene glycol diethyl ether	X				
111966	Diethylene glycol dimethyl ether	X				
112345	Diethylene glycol monobutyl ether	X				
124174	Diethylene glycol monobutyl ether acetate	X				
111900	Diethylene glycol monoethyl ether	X				
112152	Diethylene glycol monoethyl ether acetate	X				
111773	Diethylene glycol monomethyl ether	X				
629389	Diethylene glycol monomethyl ether acetate	X				
75379	Difluoroethane (1,1-)	X				
25167708	Diisobutylene	X				
26761400	Diisodecyl phthalate	X		X	X	
28553120	Diisononyl phthalate	X		X		
27554263	Diisooctyl phthalate	X				
108189	Diisopropylamine	X				
674828	Diketene (4-methylene-2-oxetanone) -	X	X			
115106	Dimethyl ether -	X	X			
131113	Dimethyl phthalate	X				
77781	Dimethyl sulfate	X				
75183	Dimethyl sulfide	X				
67685	Dimethyl sulfoxide	X				
120616	Dimethyl terephthalate -	X	X	X	X	X
127195	Dimethylacetamide (N,N-)	X				
124403	Dimethylamine	X		X		
108010	Dimethylaminoethanol (2-)	X				
121697	Dimethylaniline (N,N)	X				
119937	Dimethylbenzidine (3,3'-)	X				
68122	Dimethylformamide (N,N-)	X				
57147	Dimethylhydrazine (1,1-)	X				
526750	Dimethylphenol (2,3-) Xylenol (2,3-)	X				
105679	Dimethylphenol (2,4-) Xylenol (2,4-)	X				
95874	Dimethylphenol (2,5-) Xylenol (2,5-)	X				
576261	Dimethylphenol (2,6-) Xylenol (2,6-)	X		X		
95658	Dimethylphenol (3,4-) Xylenol (3,4-)	X				
108689	Dimethylphenol (3,5-) Xylenol (3,5-)	X				
25154545	Dinitrobenzenes (NOS)c	X				
99343	Dinitrobenzoic acid (3,5-)	X				
51285	Dinitrophenol (2,4-)	X				

CAS No. ^a	Chemical name ^b	Reactor and Distillation CTG Chemicals	Air Oxidation CTG Chemicals	Distillation NSPS Chemicals	Reactor Process NSPS Chemicals	Air Oxidation NSPS Chemicals
602017	Dinitrotoluene (2,3-)	X				
121142	Dinitrotoluene (2,4-)	X		X	X	
606202	Dinitrotoluene (2,6-)	X		X	X	
610399	Dinitrotoluene (3,4-)	X				
117817	Diocetyl phthalate	X		X	X	
97392	Di-o-tolyguanidine	X				
123911	Dioxane (1,4-) (1,4-Diethyleneoxide)	X				
646060	Dioxolane (1,3-)	X				
101815	Diphenyl methane	X				
101848	Diphenyl oxide	X				
102089	Diphenyl thiourea (N,N'-)	X				
122394	Diphenylamine	X				
110985	Dipropylene glycol	X				
112414	Dodecene (branched)	X				
25378227	Dodecene (n-)	X		X	X	
123013	Dodecyl benzene (branched)	X			X	
121158585	Dodecyl phenol (branched)	X				
28675174	Dodecylaniline	X				
121013	Dodecylbenzene (n-)	X				
27176870	Dodecylbenzene sulfonic acid	X		X	X	
25155300	Dodecylbenzene sulfonic acid, sodium salt	X		X	X	
	Dodecylbenzene, nonlinear	X		X	X	
25103586	Dodecylmercaptan (branched)	X				
27193868	Dodecylphenol	X				
106898	Epichlorohydrin (1-chloro-2,3-epoxypropane)	X		X	X	
74840	Ethane -	X	X			
64175	Ethanol -	X	X	X	X	
141435	Ethanolamine (2-Aminoethanol)	X		X	X	
141786	Ethyl acetate (Acetic acid, ethyl ester)1 -	X	X	X	X	
141979	Ethyl acetoacetate	X				
140885	Ethyl acrylate	X		X	X	
74964	Ethyl bromide	X				
75003	Ethyl chloride (Chloroethane) -	X	X	X	X	
105395	Ethyl chloroacetate	X				
107120	Ethyl cyanide	X		X		
60297	Ethyl ether	X				
75081	Ethyl mercaptan (ethanethiol)	X				
122510	Ethyl orthoformate	X				
95921	Ethyl oxalate	X				
41892711	Ethyl sodium oxalacetate	X				
75047	Ethylamine	X				
103695	Ethylaniline (n-)	X				
578541	Ethylaniline (o-)	X				
100414	Ethylbenzene	X		X	X	

<i>CAS No.^a</i>	<i>Chemical name^b</i>	<i>Reactor and Distillation CTG Chemicals</i>	<i>Air Oxidation CTG Chemicals</i>	<i>Distillation NSPS Chemicals</i>	<i>Reactor Process NSPS Chemicals</i>	<i>Air Oxidation NSPS Chemicals</i>
9004573	Ethylcellulose	X				
105566	Ethylcyanoacetate	X				
74851	Ethylene -	X	X	X	X	
96491	Ethylene carbonate	X				
107073	Ethylene chlorohydrin	X				
106934	Ethylene dibromide (Dibromoethane)	X		X	X	
107062	Ethylene dichloride -	X	X	X	X	X
107211	Ethylene glycol	X		X		
111557	Ethylene glycol diacetate	X				
112481	Ethylene glycol dibutyl ether	X				
629141	Ethylene glycol diethyl ether (1,2-diethoxyethane)	X				
110714	Ethylene glycol dimethyl ether	X				
542596	Ethylene glycol monoacetate	X				
111762	Ethylene glycol monobutyl ether	X		X	X	
112072	Ethylene glycol monobutyl ether acetate	X			X	
110805	Ethylene glycol monoethyl ether	X		X		
111159	Ethylene glycol monoethyl ether acetate	X		X	X	
109864	Ethylene glycol monomethyl ether	X		X	X	
110496	Ethylene glycol monomethyl ether acetate	X				
	Ethylene glycol monoethyl ether	X				
122996	Ethylene glycol monophenyl ether	X				
2807309	Ethylene glycol monopropyl ether	X				
75218	Ethylene oxide -	X	X	X	X	X
107153	Ethylenediamine	X				
60004	Ethylenediamine tetraacetic acid	X				
151564	Ethylenimine (Aziridine)	X				
149575	Ethylhexanoic acid (2-)	X				
103117	Ethylhexyl acrylate (2-isomer)	X				
	Ethylhexyl succinate (2-)	X				
25550145	Ethylmethylbenzene	X		X		
206440	Fluoranthene	X				
50000	Formaldehyde -	X	X	X	X	X
75127	Formamide	X				
64186	Formic acid -	X	X			X
110178	Fumaric acid	X				
111308	Glutaraldehyde	X				
367475	Glyceraldehyde	X				
56815	Glycerol	X		X	X	
26545737	Glycerol dichlorohydrin	X				
556525	Glycidol	X				
56406	Glycine	X				
	Glycol ethers	X				
107222	Glyoxal (ethane dial) -	X	X			X

<i>CAS No.^a</i>	<i>Chemical name^b</i>	<i>Reactor and Distillation CTG Chemicals</i>	<i>Air Oxidation CTG Chemicals</i>	<i>Distillation NSPS Chemicals</i>	<i>Reactor Process NSPS Chemicals</i>	<i>Air Oxidation NSPS Chemicals</i>
	Guanidine	X				
506934	Guanidine nitrate	X				
592-76-7	Heptenes	X		X	X	
118741	Hexachlorobenzene	X				
87683	Hexachlorobutadiene	X				
77474	Hexachlorocyclopentadiene	X				
67721	Hexachloroethane	X				
36653824	Hexadecyl alcohol (1-hexadecanol)	X				
4860031	Hexadecyl chloride			X		
592450	Hexadiene (1,4-)	X				
3323533	Hexamethylene diamine adipate	X		X	X	
124094	Hexamethylenediamine	X		X	X	
100970	Hexamethylenetetramine	X		X	X	
110543	Hexane	X		X	X	
106694	Hexanetriol (1,2,6-)	X				
111273	Hexyl alcohol	X				
107415	Hexylene glycol	X				
	Higher glycols	X				
74908	Hydrogen cyanide -	X	X	X		X
123319	Hydroquinone	X				
141311	Hydroxyadipaldehyde	X				
99967	Hydroxybenzoic acid (p-)	X				
111422	Iminodiethanol (2,2-) (diethanolamine)	X				
123513	Isoamyl alcohol	X				
	Isoamyl chloride (mixed)	X				
26760645	Isoamylene	X				
75285	Isobutane	X		X	X	
78831	Isobutanol	X		X	X	
110190	Isobutyl acetate	X				
106638	Isobutyl acrylate	X				
97869	Isobutyl methacrylate	X				
109535	Isobutyl vinyl ether	X				
115117	Isobutylene	X		X	X	
78842	Isobutyraldehyde (2-methyl-propanal)	X		X	X	
79312	Isobutyric acid -	X	X			X
25339177	Isodecanol	X		X		
	Isohexyldecyl alcohol	X				
27458-94-2	Isononyl alcohol	X				
26952216	Isooctyl alcohol	X		X		
78784	Isopentane	X		X	X	
78591	Isophorone	X				
7027114	Isophorone nitrile	X				
121915	Isophthalic acid -	X	X	X		X
78795	Isoprene	X		X	X	

<i>CAS No.^a</i>	<i>Chemical name^b</i>	<i>Reactor and Distillation CTG Chemicals</i>	<i>Air Oxidation CTG Chemicals</i>	<i>Distillation NSPS Chemicals</i>	<i>Reactor Process NSPS Chemicals</i>	<i>Air Oxidation NSPS Chemicals</i>
67630	Isopropanol	X		X	X	
108214	Isopropyl acetate	X				
75296	Isopropyl chloride	X				
108203	Isopropyl ether	X				
75310	Isopropylamine	X				
25168063	Isopropylphenol	X				
463514	Ketene	X		X	X	
79334	Lactic acid	X				
1643-20-5	Lauryl dimethylamine oxide	X				
6080564	Lead acetate	X				
17976-436-1	Lead phthalate	X				
1335326	Lead subacetate	X				
	Linear alcohols, ethoxylated and sulfated, sodium salt, mixed	X		X	X	
	Linear alcohols, ethoxylated, mixed	X		X	X	
	Linear alcohols, sulfated, sodium salt, mixed			X	X	
	Linear alkyl benzene (linear dodecylbenzene)	X				
142723	Magnesium acetate (Acetic acid, magnesium salt)	X		X		
110167	Maleic acid -	X	X			
108316	Maleic anhydride -	X	X	X	X	X
123331	Maleic hydrazide	X				
6915157	Malic acid	X				
108781	Melamine (1,3,5-triazine-2,4,6-triamine)	X		X		
1600277	Mercuric acetate	X				
141797	Mesityl oxide -	X	X	X	X	
121471	Metanilic acid	X				
79414	Methacrylic acid	X				
126987	Methacrylonitrile	X		X		
513428	Methallyl alcohol	X				
563473	Methallyl chloride	X				
74828	Methane -	X	X			
67561	Methanol -	X	X	X	X	
63683	Methionine	X				
79209	Methyl acetate -	X	X			
105453	Methyl acetoacetate	X				
96333	Methyl acrylate	X				
74839	Methyl bromide (Bromomethane)	X				
	Methyl butenols	X				
37365712	Methyl butynol	X				
74873	Methyl chloride (Chloromethane) -	X	X	X	X	
78933	Methyl ethyl ketone (2-butanone) -	X	X	X	X	X
107313	Methyl formate	X				
60344	Methyl hydrazine	X				

<i>CAS No.^a</i>	<i>Chemical name^b</i>	<i>Reactor and Distillation CTG Chemicals</i>	<i>Air Oxidation CTG Chemicals</i>	<i>Distillation NSPS Chemicals</i>	<i>Reactor Process NSPS Chemicals</i>	<i>Air Oxidation NSPS Chemicals</i>
74884	Methyl iodide -	X	X	X		
108112	Methyl isobutyl carbinol	X				
108101	Methyl isobutyl ketone (Hexone)	X		X	X	
624839	Methyl isocyanate	X				
74931	Methyl mercaptan	X				
80626	Methyl methacrylate	X		X	X	
98851	Methyl phenyl carbinol	X				
119368	Methyl salicylate	X				
1634044	Methyl tert-butyl ether	X		X	X	
74895	Methylamine	X		X	X	
100618	Methylaniline (N-)	X				
910807	Methylbenzene (80/20 mixture) -	X				
137326	Methylbutanol (2-)	X				
108872	Methylcyclohexane	X				
25639423	Methylcyclohexanol	X				
1331222	Methylcyclohexanone	X				
75092	Methylene chloride (Dichloromethane)	X		X	X	
101779	Methylene dianiline (4,4')	X				
101688	Methylene diphenyl diisocyanate (4,4') (MDI)	X				
79696	Methylionones (a-)	X				
90120	Methylnaphthalene (1-)	X				
91576	Methylnaphthalene (2-)	X				
107835	Methylpentane (2-)	X		X		
77758	Methylpentynol	X				
98839	Methylstyrene (a-) -	X	X			X
110918	Morpholine	X				
91203	Naphthalene	X		X	X	
85472	Naphthalene sulfonic acid (a-)	X				
120183	Naphthalene sulfonic acid (b-)	X				
1338-24-5	Naphthenic acids	X				
90153	Naphthol (a-)	X				
135193	Naphthol (b-)	X				
567180	Naphtholsulfonic acid (1-)	X				
134327	Naphthylamine (1-)	X				
91598	Naphthylamine (2-)	X				
84866	Naphthylamine sulfonic acid (1,4-)	X				
81163	Naphthylamine sulfonic acid (2,1-)	X				
75832	Neohexane	X				
75989	Neopentanoic acid	X				
126307	Neopentyl glycol	X				
142825	n-Heptane	X		X	X	
3349-06-2	Nickel formate	X				
	Nitriloacetic acid	X				
99092	Nitroaniline (m-)	X				

<i>CAS No.^a</i>	<i>Chemical name^b</i>	<i>Reactor and Distillation CTG Chemicals</i>	<i>Air Oxidation CTG Chemicals</i>	<i>Distillation NSPS Chemicals</i>	<i>Reactor Process NSPS Chemicals</i>	<i>Air Oxidation NSPS Chemicals</i>
88744	Nitroaniline (o-)	X				
100016	Nitroaniline (p-)	X				
91236	Nitroanisole (o-)	X				
100174	Nitroanisole (p-)	X				
98953	Nitrobenzene	X		X	X	
121926	Nitrobenzoic acid (m-)	X				
552169	Nitrobenzoic acid (o-)	X				
62237	Nitrobenzoic acid (p-)	X				
122-04-3	Nitrobenzoyl chloride (p-)	X				
79243	Nitroethane	X				
556887	Nitroguanidine	X				
75525	Nitromethane	X				
86577	Nitronaphthalene (1-)	X				
88755	Nitrophenol (o-)	X				
100027	Nitrophenol (p-)	X				
25322014	Nitropropane (1-)	X				
79469	Nitropropane (2-)	X				
1321126	Nitrotoluene (all isomers)	X				
99081	Nitrotoluene (m-)	X				
88722	Nitrotoluene (o-)	X				
99990	Nitrotoluene (p-)	X				
25168041	Nitroxylene	X				
27215958	Nonene	X		X	X	
1430808	Nonyl alcohol	X		X	X	
1081772	Nonylbenzene (branched)	X				
25154523	Nonylphenol	X		X	X	
25154523	Nonylphenol (branched)	X				
9016459	Nonylphenol, ethoxylated	X		X	X	
111659	Octane	X				
111660	Octene-1	X		X	X	
107459	Octylamine (tert-)	X				
27193288	Octylphenol	X				
	Oil-soluble petroleum sulfonate calcium salt	X		X	X	
	Oil-soluble petroleum sulfonate sodium salt	X		X		
144627	Oxalic acid	X				
471465	Oxamide	X				
	Oxo chemicals	X				
30525894	Paraformaldehyde	X				
123637	Paraldehyde	X				
87865	Pentachlorophenol	X				
78-11-5	Pentaerythritol tetranitrate	X				
109660	Pentane	X		X		
115775	Pentanethiol	X		X	X	
6032297	Pentanol (2-)	X				

<i>CAS No.^a</i>	<i>Chemical name^b</i>	<i>Reactor and Distillation CTG Chemicals</i>	<i>Air Oxidation CTG Chemicals</i>	<i>Distillation NSPS Chemicals</i>	<i>Reactor Process NSPS Chemicals</i>	<i>Air Oxidation NSPS Chemicals</i>
584021	Pentanol (3-)	X				
109671	Pentene (1-)	X		X	X	
109682	Pentene (2-)	X				
79210	Peracetic acid	X				
594423	Perchloromethyl mercaptan	X				
62442	Phenacetin	X				
85018	Phenanthrene	X				
94702	Phenetidine (o-)	X				
156434	Phenetidine (p-)	X				
108952	Phenol -	X	X	X	X	X
77098	Phenolphthalein	X				
1333397	Phenolsulfonic acids (all isomers)	X				
91407	Phenyl anthranilic acid (all isomers)	X				
108452	Phenylenediamine (m-)	X				
95545	Phenylenediamine (o-)	X				
106503	Phenylenediamine (p-)	X				
89-25-8	Phenylmethylpyrazolone	X				
103651	Phenylpropane	X		X	X	
108736	Phloroglucinol (1,3,5-benzenetriol)	X				
75445	Phosgene	X		X	X	
88993	Phthalic acid	X				
85449	Phthalic anhydride -	X	X	X	X	X
85416	Phthalimide	X				
91156	Phthalonitrile	X				
109-06-8	Picoline (a-)	X				
108996	Picoline (b-)	X				
96-91-3	Picramic acid	X				
88891	Picric acid	X				
110850	Piperazine	X				
504609	Piperlyene	X				
25322683	Polyethylene glycol	X				
25322694	Polypropylene glycol	X				
127082	Potassium acetate	X				
74986	Propane -	X	X	X	X	
57578	Propiolactone (beta-) (2-Oxetanone)	X				
123386	Propionaldehyde	X		X	X	
79094	Propionic acid -	X	X	X		X
109604	Propyl acetate (n-)	X				
71238	Propyl alcohol (n-)	X		X	X	
540545	Propyl chloride	X				
107108	Propylamine	X				
115071	Propylene -	X	X	X	X	
127004	Propylene chlorohydrin	X		X		
57556	Propylene glycol	X		X	X	
107982	Propylene glycol monomethyl ether	X				
75569	Propylene oxide -	X	X	X	X	X

<i>CAS No.^a</i>	<i>Chemical name^b</i>	<i>Reactor and Distillation CTG Chemicals</i>	<i>Air Oxidation CTG Chemicals</i>	<i>Distillation NSPS Chemicals</i>	<i>Reactor Process NSPS Chemicals</i>	<i>Air Oxidation NSPS Chemicals</i>
95636	Pseudocumene	X				
137-17-7	Pseudocumidine	X				
129000	Pyrene	X				
110861	Pyridine	X				
616455	Pyrrolidone (2-)	X				
106514	Quinone	X				
108463	Resorcinol (1,3-benzenediol)	X				
69727	Salicylic acid	X				
11206	Sebacic acid	X				
127093	Sodium acetate	X				
532321	Sodium benzoate	X				
3926623	Sodium chloroacetate	X				
143339	Sodium cyanide	X		X		
25155-30-0	Sodium dodecyl benzene sulfonate	X				
141537	Sodium formate	X				
124414	Sodium methoxide	X				
62760	Sodium oxalate	X				
139026	Sodium phenate	X				
137406	Sodium propionate	X				
110441	Sorbic acid	X				
50704	Sorbitol (D-Glucitol)	X		X	X	
588590	Stilbene	X				
100425	Styrene -	X	X	X	X	X
110156	Succinic acid	X				
110612	Succinonitrile	X				
121573	Sulfanilic acid	X				
126330	Sulfolane	X				
	Synthesis gas	X				
	Tallow acids, sodium salt Tetra (methyl-ethyl) plumbane	X				
526830	Tartaric acid	X				
100210	Terephthalic acid -	X	X	X	X	X
100209	Terephthaloyl chloride	X				
	Tetra (methyl-ethyl) lead	X		X	X	
632791	Tetrabromophthalic anhydride	X				
634-90-2	Tetrachlorobenzene (1,2,3,5-)	X				
95943	Tetrachlorobenzene (1,2,4,5-)	X				
79345	Tetrachloroethane (1,1,2,2-)	X		X		
127184	Tetrachloroethylene (Perchloroethylene)	X		X	X	
117088	Tetrachlorophthalic anhydride	X				
78002	Tetraethyl lead	X		X	X	
112607	Tetraethylene glycol	X				
112572	Tetraethylenepentamine	X				
116-14-3	Tetrafluoroethylene	X				
109999	Tetrahydrofuran	X		X	X	

<i>CAS No.^a</i>	<i>Chemical name^b</i>	<i>Reactor and Distillation CTG Chemicals</i>	<i>Air Oxidation CTG Chemicals</i>	<i>Distillation NSPS Chemicals</i>	<i>Reactor Process NSPS Chemicals</i>	<i>Air Oxidation NSPS Chemicals</i>
119642	Tetrahydronaphthalene	X				
85438	Tetrahydrophthalic anhydride	X				
110601	Tetramethylenediamine	X				
110189	Tetramethylethylenediamine	X				
75741	Tetramethyllead	X		X	X	
62566	Thiourea	X				
108883	Toluene	X		X	X	
95807	Toluene diamine (2,4-)	X		X		
584849	Toluene diisocyanate (2,4-)	X				
26471627	Toluene diisocyanates (mixture)	X		X	X	
1333079	Toluene sulfonamides (o- and p-)	X				
104154	Toluene sulfonic acids	X				
584-84-9 (2,4-TDI) and 91-08-7 (2,6-TDI)	Toluene-2,4 (and 2,6)-diisocyanate (80/20) mixture			X		
98599	Toluenesulfonyl chloride	X				
95534	Toluidine (o-)	X				
76039	Trichloroacetic acid	X				
634935	Trichloroaniline (2,4,6-)	X				
87616	Trichlorobenzene (1,2,3-)	X				
120821	Trichlorobenzene (1,2,4-)	X				
108703	Trichlorobenzene (1,3,5-)	X				
71556	Trichloroethane (1,1,1-)	X		X	X	
79005	Trichloroethane (1,1,2-)	X		X	X	
79016	Trichloroethylene	X		X	X	
75694	Trichlorofluoromethane	X		X	X	
95954	Trichlorophenol (2,4,5-)	X				
96184	Trichloropropane (1,2,3-)	X				
1330785	Tricresyl phosphate	X				
112709	Tridecyl alcohol	X				
102716	Triethanolamine	X		X	X	
121448	Triethylamine	X				
112276	Triethylene glycol	X		X	X	
112492	Triethylene glycol dimethyl ether	X				
112505	Triethylene glycol monoethyl ether	X				
112356	Triethylene glycol monomethyl ether	X				
7756947	Triisobutylene	X				
552307	Trimellitic anhydride	X				
144194	Trimethyl-1,3-pentanediol (2,2,4-)	X				
16325636	Trimethyl-1-pentanol (2,4,4-)	X				
75503	Trimethylamine	X				
933482	Trimethylcyclohexanol	X				
2408379	Trimethylcyclohexanone	X				
34216347	Trimethylcyclohexylamine	X				
77996	Trimethylolpropane	X				

CAS No. ^a	Chemical name ^b	Reactor and Distillation CTG Chemicals	Air Oxidation CTG Chemicals	Distillation NSPS Chemicals	Reactor Process NSPS Chemicals	Air Oxidation NSPS Chemicals
540841	Trimethylpentane (2,2,4-)	X				
24800440	Tripropylene glycol	X				
57136	Urea	X				
88120	Vinyl (N-)-pyrrolidone (2-)	X				
108054	Vinyl acetate (Acetic acid, ethenyl ester)	X		X	X	
75014	Vinyl chloride (Chloroethylene)	X		X	X	
25013154	Vinyl toluene	X				
100403	Vinylcyclohexene (4-)	X				
75354	Vinylidene chloride (1,1-dichloroethylene)	X		X	X	
140896	Xanthates	X				
108383	Xylene (m-)	X	X	X	X	
1330207	Xylene (NOS) ^c	X		X	X	
95476	Xylene (o-) -	X	X	X	X	
106423	Xylene (p-) -	X	X	X	X	
25321419	Xylene sulfonic acid	X				
1300716	Xylenols (Mixed)	X				
1300738	Xylidene (2,3-)	X				
1300738	Xylidene (2,4-)	X				
1300738	Xylidene (2,5-)	X				
1300738	Xylidene (2,6-)	X				
1300738	Xylidene (3,4-)	X				
1300738	Xylidene (3,5-)	X				
5970456	Zinc acetate	X				

^a CAS Number = Chemical Abstract Service number.

^b Isomer means all structural arrangements for the same number of atoms of each element and does not mean salts, esters or derivatives.

[Pa.B. Doc. No. 23-73. Filed for public inspection January 20, 2023, 9:00 a.m.]

Title 40—LIQUOR
LIQUOR CONTROL BOARD
[40 PA. CODE CH. 13]
Promotion with Licensees

The Liquor Control Board (Board), under the authority of sections 207(i) and 208(j) of the Liquor Code (47 P.S. §§ 2-207(i) and 2-208(j)), amends §§ 13.81 and 13.231 (relating to promotion with licensees; and samples for unlicensed consumers) to read as set forth in Annex A.

Summary

This final-form rulemaking is part of the Board's ongoing process to update its regulations by updating the process by which licensed vendors may promote products with licensees. This final-form rulemaking adds language to clarify what is required of the regulated community, expands the monthly amount of liquor that can be used for promotion and adjusts the cost of promotional product to be consistent with the Liquor Code. This final-form rulemaking also eliminates certain procedures and re-

cords that the Board no longer considers necessary. Language is added to §§ 13.81 and 13.231 to clarify that only unlicensed consumers may receive samples.

This final-form rulemaking clarifies to whom samples may be given. Licensees and the public often use the words "tastings" and "samples" interchangeably, but in the Board's regulations, they mean different things:

- A tasting is no larger than a standard-size alcohol beverage, § 13.201 (relating to definitions), although manufacturing licensees can be restricted to even smaller amounts by the Liquor Code. Tastings are consumed at the location where they are given.

- Samples, on the other hand, must be provided in "unopened containers of the smallest commercially available size," as § 13.231 (relating to general provisions) (Emphasis added) currently states. Also, "samples may not be opened or consumed on State Liquor Store premises or distributor or importing distributor licensed premises." Id.

To reduce confusion over these words, this final-form rulemaking deletes the word "samples" from § 13.81.

When promoting a product with licensees, licensed vendors shall only be able to provide tastings, not opened or unopened bottles of product.

In subsection (a), the first sentence is amended from the negative—"Each agent. . .may not use more than one case"—to the positive: "Each agent. . .may use up to one case. . ." Next, the quantity is changed from one case of each brand to one case of each product. The word "brand," in this context, is synonymous with a line or style of products created by a manufacturer or company. The word "product" is a specific item within that brand. By changing the word from "brand" to "product," the Board is expanding the quantity of items that may be used by licensed vendors for promotion to licensees.

Throughout § 13.81, the word "licensed" is inserted in front of the word "vendor" for the sake of clarity. The phrase "licensed vendor" is a defined term in § 13.71 (relating to definitions) for this subchapter of the Board's regulations, and it includes "A licensee holding a Manufacturer or Importer License, or a vendor's permit, and selling liquors to the Board."

The phrase "to promote that product to licensees, as that term is defined in § 13.71 (relating to definitions)," is added to subsection (a) to distinguish the application of this section from § 13.231, which applies to unlicensed consumers.

The second sentence of subsection (a) clarifies that the product must be purchased at a State Liquor Store, if it is available there, or through the Board's special liquor order process, if the product or desired bottle size is not available at a State Liquor Store. The previous calculation of cost is also changed, from the cost price plus 25% to the retail price. It is unclear how "cost plus 25%" was developed as it is not found in the Liquor Code. Section 305(b) of the Liquor Code (47 P.S. § 3-305(b)) provides as follows (Emphasis added):

Every Pennsylvania Liquor Store shall sell liquors at wholesale to hotels, restaurants, clubs, and railroad, pullman and steamship companies licensed under this act; and, under the regulations of the board, to pharmacists duly licensed and registered under the laws of the Commonwealth, and to manufacturing pharmacists, and to reputable hospitals approved by the board, or chemists. *Sales to licensees shall be made at a price that includes a discount of ten per centum from the retail price; except that special order sales to licensees authorized in subsection (a) shall not be subject to the ten per centum discount.* The board may sell to registered pharmacists only such liquors as conform to the Pharmacopoeia of the United States, the National Formulary, or the American Homeopathic Pharmacopoeia. The board may sell at special prices under the regulations of the board, to United States Armed Forces facilities which are located on United States Armed Forces installations and are conducted pursuant to the authority and regulations of the United States Armed Forces. *All other sales by such stores shall be at retail, except that incentives, such as coupons or discounts on certain products, may be offered to unlicensed customers of the board as provided under sections 207(m) and 493(24)(ii)(B).*

The statute does not include licensed vendors in the group of licensees that may purchase at wholesale, meaning a 10% discount from the retail price. Therefore, licensed vendors should pay the retail price.

The third sentence of subsection (a) is deleted since this final-form rulemaking now requires the licensed vendor to

purchase the promotional product at retail. The fourth sentence of subsection (a) is also deleted, since the Board no longer requires a separate order to be placed for each agent. In the fifth sentence of subsection (a), the word "shall" replaces the word "may" because the Board does not wish to exercise discretion in allowing a licensed vendor to purchase and distribute promotional product to its agents; this activity shall be permitted. The final sentence of subsection (a) is deleted, since the Board no longer requires a licensed vendor to file a statement giving the name of the licensed vendor's authorized supervisor, together with the territories and names of all agents under his supervision.

Subsection (b) is rewritten to clarify that, for promotion with licensees, agents shall only use product to give tastings, as provided in § 13.211 (relating to tasting events). Agents shall not leave any bottle of product with a licensee, whether opened or unopened. This language is added because without it, the existing language is not clear that an agent may not leave a bottle of product with a licensee.

Subsection (c) clarifies that the agent is required to label each bottle. It is no longer necessary for the bottles to be labeled before leaving the State Store; the bottles must simply be labeled before the agent promotes the product with a licensee. The language of the label has been updated, replacing the word "Sample" with "For tastings only."

The first sentence of subsection (d) is amended to bring the recordkeeping requirement of the licensed vendor into alignment with recordkeeping required of other licensees. The phrase "in hard copy or electronic media consistent with generally accepted accounting procedures, for a period of at least 2 years" is also used in §§ 5.101 and 9.13 (relating to breweries; and records and reports). The type of information that must be kept is amended to be consistent with the changes made to subsection (a) in that the word "brand" is changed to "products." The remainder of subsection (d) is deleted as the Board no longer requires this information.

Section 13.231 is renamed "Samples for unlicensed consumers," to clarify that samples may be given to unlicensed consumers. The first sentence of subsection (a) is amended by adding the word "only" to further strengthen the understanding that samples may only be given to unlicensed consumers. The second sentence of subsection (a) is deleted since this final-form rulemaking eliminates the permissibility of allowing a licensed vendor to give samples of product to licensees.

Affected Parties

The affected parties include all manufacturing and importing licensees of liquor, including wine, as well as any vendor permittees. As of September 2, 2022, there are approximately 250 licensed vendors that could be affected by this final-form rulemaking. However, note that there are a significant number of manufacturers that get their product into this Commonwealth through the Board or an importer but are not licensed by the Board, such as out-of-State manufacturers. Since these entities are not licensed by the Board, it is difficult to quantify how many there are, let alone how large or small they are, and therefore the Board does not have enough information to evaluate the small business status of all entities that will be affected by this final-form rulemaking.

Paperwork Requirements

This final-form rulemaking will not require any additional paperwork to be filed. On the contrary, this final-form rulemaking eliminates existing paperwork requirements that the Board no longer deems necessary.

Fiscal Impact

This final-form rulemaking changes the cost of promotional product for licensed vendors, from the cost price to the Board plus 25% to the retail price, since there is no basis in the Liquor Code for charging a licensed vendor “cost plus 25%.” The Board analyzed a list of new products, introduced in September 2021 and October 2021, that were all 750 milliliters in size. The list excluded products that were identified as Luxury or Holiday products. Of the products the Board analyzed, the change in price from cost plus 25% to retail price resulted in an average increase of \$5.81 per unit, with a mean of \$5.60 per unit. However, licensed vendors have complete control over what and how much product to offer retail licensees in promotion—within the size restrictions set forth in § 13.211—and therefore can mitigate whatever fiscal impact might occur because of the change in pricing. A change in cost to suppliers for lawfully procuring promotional product can also likely be offset by profits derived from future sales of the products for which the product is being used.

Effective Date

This final-form rulemaking will become effective upon publication in the *Pennsylvania Bulletin*.

Contact Person

Questions regarding this final-form rulemaking should be addressed to Rodrigo Diaz, Chief Counsel, Jason Worley, Deputy Chief Counsel or Norina Foster, Assistant Counsel, Office of Chief Counsel, Pennsylvania Liquor Control Board, Room 401, Northwest Office Building, Harrisburg, PA 17124-0001.

Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on May 24, 2022, the Board submitted a copy of the notice of proposed rulemaking, published at 52 Pa.B. 3318 (June 11, 2022), to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the House Liquor Control Committee and Senate Committee on Law and Justice for review and comment.

Under section 5(c) of the Regulatory Review Act, the Board is required submit to IRRC and the House and Senate Committees copies of comments received during the public comment period, as well as other documents when requested. The Board did not receive any comments from the public or from IRRC.

Under section 5.1(j.2) of the Regulatory Review Act (71 P.S. § 745.5a(j.2)), on November 30, 2022, the final-form rulemaking was deemed approved by the House and Senate Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on December 8, 2022, and approved the final-form rulemaking.

Findings

The Board finds that:

(1) Public notice of intention to adopt the administrative amendments adopted by this order has been given under sections 201 and 202 of the act of July 31, 1968 (P.L. 769, No. 240) (45 P.S. §§ 1201 and 1202) referred to as the Commonwealth Documents Law and the regula-

tions thereunder, 1 Pa. Code §§ 7.1 and 7.2 (relating to notice of proposed rulemaking required; and adoption of regulations).

(2) The amendments to the Board’s regulations in the manner provided in this order are necessary and appropriate for the administration of the Liquor Code.

Order

The Board, acting under authorizing statute, orders that:

(a) The regulations of the Board, 40 Pa. Code Chapter 13, are amended by amending §§ 13.81 and 13.231 to read as set forth in Annex A.

(b) The Board shall certify this order and Annex A and deposit them with the Legislative Reference Bureau as required by law.

(c) This order shall become effective upon publication in the *Pennsylvania Bulletin*.

TIM HOLDEN,
Chairperson

(*Editor’s Note:* See 52 Pa.B. 8009 (December 24, 2022) for IRRC’s approval order.)

Fiscal Note: Fiscal Note 54-96 remains valid for the final adoption of the subject regulations.

Annex A

TITLE 40. LIQUOR

PART I. LIQUOR CONTROL BOARD

CHAPTER 13. PROMOTION

Subchapter B. MARKETING BY VENDORS AND AGENTS; SPECIAL ORDERS; LUXURY ITEM ORDERS; PROMOTION WITH LICENSEES AND UNLAWFUL ACTS

§ 13.81. Promotion with licensees.

(a) Each agent of a licensed vendor may use up to one case of each product of liquor sold by the licensed vendor to promote that product to licensees, as that term is defined in § 13.71 (relating to definitions), during any calendar month. The product shall be purchased only through the Board, at a State Liquor Store, if the product is available for purchase at a State Liquor Store, or through the Board’s special liquor order purchase process, if the product or desired bottle size is not available for purchase at a State Liquor Store, at the retail price plus any required taxes. The licensed vendor (or the licensed vendor’s authorized supervisor) shall be permitted to purchase and distribute the product to agents under the licensed vendor’s supervision.

(b) [Reserved].

(b.1) For promotion with licensees, agents shall only use product to give tastings, as provided in § 13.211 (relating to tasting events). Agents may not leave any bottle of product with a licensee, whether opened or unopened.

(c) The agent shall affix to each bottle, before promoting the product with a licensee, a separate label, or lettering on the commercial label, at least 1/4 inch high, reading: “For tastings only. Not to be sold. Possession of this bottle by licensee unlawful.”

(d) Each licensed vendor shall keep, in hard copy or electronic media consistent with generally accepted accounting procedures, for a period of at least 2 years, a

record of all bottles purchased, the names of the agents to whom samples were issued, and the quantity and products.

Subchapter E. SAMPLES

§ 13.231. Samples for unlicensed consumers.

(a) Samples may be provided by manufacturers or their representatives, licensed distributors and importing distributors only to unlicensed consumers.

(b) Samples shall be in unopened containers of the smallest commercially available size.

(c) Providing samples may not be conditioned upon any purchase requirement.

(d) Samples may not be opened or consumed on State Liquor Store premises or distributor or importing distributor licensed premises.

(e) Samples are limited to one container per patron in any offering.

[Pa.B. Doc. No. 23-74. Filed for public inspection January 20, 2023, 9:00 a.m.]